

Youth Perspectives on Climate Change

Best Practices for Youth Engagement and Addressing Health Impacts of Climate Change

July 2018

National Environmental Justice Advisory Council

*A Federal Advisory Committee to the U.S. Environmental
Protection Agency*

ACKNOWLEDGEMENTS

The National Environmental Justice Advisory Council (NEJAC) acknowledges the efforts of the NEJAC Youth Perspectives on Climate Change Work Group in preparing the initial draft of this report. The NEJAC also acknowledges the stakeholders and community members who participated in the Work Groups' deliberation by providing public comments. In addition, the Work Group's efforts were supported by the U.S. Environmental Protection Agency staff, notably, Ms. Alyssa Edwards and Ms. Jasmine Muriel as Designated Federal Officers.

DISCLAIMER

This report of recommendations has been written as part of the activities of the NEJAC, a public advisory committee providing independent advice and recommendations on the issue of environmental justice to the Administrator and other officials of the EPA. In addition, the materials, opinion, findings, recommendations, and conclusions expressed herein, and in any study or other source referenced herein, should not be construed as adopted or endorsed by any organization which any Work Group member is affiliated.

This report has not been reviewed for approval by EPA, and hence, its contents and recommendations do not necessarily represent the views and the policies of the Agency, nor of other agencies in the Executive Branch of the federal government.

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III

July 12, 2018

Andrew Wheeler
Acting Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Dear Acting Administrator Wheeler:

The National Environmental Justice Advisory Council is pleased to submit the report *Youth Perspectives on Climate Change* for the Agency's review. The NEJAC developed this report in response to the Agency's charge of August 2015. EPA requested that the NEJAC provide recommendations to assist the Agency in developing best practices for addressing climate change concerns, as highlighted from a youth perspective. Specifically, the NEJAC was requested to identify:

1. How can EPA effectively engage with youth on climate change and adaptation planning using new resources and tools designed to help communities become more resilient and better protect themselves from the impacts of climate change? What activities and mechanisms (e.g. policy, guidance, or protocol) should EPA consider to authentically engage and work collaboratively with youth, and other interested stakeholders, to identify and address climate change impacts on overburdened and vulnerable communities?
2. What best practices, including efforts to address the compounding health vulnerabilities brought on by climate change, can be provided using youth driven projects from across the United States from which results-oriented recommendations can be drawn?

In response, the NEJAC's Youth Work Group developed both recommendations and Principles of Youth Engagement. The NEJAC believes successful youth engagement on climate change can be supported by efforts that:

- ***Mentor and Train Youth Leaders and Engage Youth in Decision-Making***
- ***Build Capacity by Allocating Resources for Youth Development***
- ***Develop and Implement Principles for Engaging Youth on Climate Justice***

Additional details and explanations of our recommendations and Principles are included in the attached report. The EPA should continue to create opportunities for youth, recognizing that integrating youth perspectives can greatly enhance EPA's efforts to protect human health and the environment. Thank you for this opportunity to provide recommendations and we look forward to hearing the Agency's response.

Sincerely,

A handwritten signature in black ink, appearing to read 'Richard Moore', with a long horizontal flourish extending to the right.

Richard Moore
Chair

Attachment

cc: NEJAC Members
Henry Darwin, Acting Deputy Administrator
Brittany Bolen, Associate Administrator for the Office of Policy
Matthew Tejada, Director for the Office of Environmental Justice
Karen L. Martin, Designated Federal Officer and NEJAC Program Manager

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Executive Summary

This report is written at a time when resistance to climate change and environmental injustice, as well as the stakes for vulnerable communities, has reached historic highs. Despite the urgency of the climate crisis, political will at the national level has lagged behind or been outright captured by powerful interests opposed to bold and just solutions offered by young people, desperate to defend their future rights to a clean and healthy planet.

Climate change is inherently an issue of justice. Rising temperatures are predicted to affect the poorest, yet the benefits of mitigation and adaptation strategies are inequitably distributed. For example, cap and trade does not apply tougher carbon limits or rules on areas with greater concentrations of hazardous facilities sited in low-income communities and communities of color. The health benefits of reduced air pollutants will unlikely reach these communities. Low-income communities of color not only bear most of the burden of hazardous environments, but also poorer health outcomes that are greatly influenced by socioeconomic determinants. Rural, suburban, and urban youth leaders are therefore demanding greater accountability, enforcement, and implementation of climate change policies within their communities.

In 2015, the National Environmental Justice Advisory Council (NEJAC) and U.S. Environmental Protection Agency (EPA) Office of Environmental Justice (OEJ) developed the Youth Perspectives on Climate Change (YPCC) Work Group (herein the “Work Group”). This effort creates a space for youth at the national environmental justice table.

Through an application process, sixteen emerging young leaders across the nation were selected to participate in the Work Group in early 2016 for a two-year term, from spring 2016 to spring 2018. Work Group members hold intersecting identities and experiences with backgrounds in community building, public health, movement building, and political advocacy at the local and national levels.

To address the charges below posed by the EPA, the Work Group collaborated to design, implement, and assess a questionnaire among the Work Group members and perform in-depth interviews with members’ partners to develop a set of practical recommendations. The charges included:

Charge 1: How can EPA effectively engage with youth on climate change and adaptation planning using new resources and tools designed to help communities become more resilient and better protect themselves from the impacts of climate change? What activities and mechanisms should EPA consider to authentically engage and work collaboratively with youth, and other interested stakeholders, to identify and address climate change impacts on overburdened and vulnerable communities?

Charge 2: What best practices, including efforts to address the compounding health vulnerabilities brought on by climate change, can be provided using youth-driven projects from across the United States from which results-oriented recommendations can be drawn?

Through the assessments of members’ and their partners’ experiences in working and collaborating with youth and vulnerable populations on climate change issues, the following recommendations and principles were developed. Below is a one-page graphic titled “Principles of Youth Engagement on Climate Change” which summarizes the recommendations, that can be distributed separately from the report.

Mentor and Train Youth Leaders and Engage Youth in Decision-Making

1. Support organizations with inclusive representation and community-based youth hiring practices
2. Provide trainings and grants for organizations to employ storytelling and other youth engagement strategies
3. Increase accessibility to climate change curricula and educational resources
4. Provide youth a seat at the table in decision-making spaces

Build Capacity by Allocating Resources for Youth Development

1. Prioritize support for organizations that provide youth with work opportunities that pay a living wage and align with their values
2. Support organizations whose goal is to build long-term and authentic relationships and bridge cultural gaps
3. Expand youth capacity for technical and broader civic engagement skills around health vulnerabilities
4. Allocate resources to address language and communication barriers
5. Allocate resources to address accessibility and participation barriers such as internet connectivity, transportation, and competing conflicts

Develop and Implement Principles for Engaging Youth on Climate Justice

1. Apply the Jemez Principles of Democratic Organizing¹ and Principles of Environmental Justice² to engagement with young people
2. Uplift intergenerational appreciation
3. Allow change to happen “at the speed of trust”
4. Engage in Seventh Generation Thinking³

This report not only serves as a guide for federal agencies, but for all stakeholders who are engaged in public participation and decision-making processes surrounding climate change impacts. The recommendations and organizations presented herein are models of best practices. The recommendations are not meant to be universally applied to future engagement with youth and vulnerable communities on climate action by every organization; rather, they provide valuable lessons learned that may be customized and applied to future work based on the priorities, characteristics, and demands of each unique community.

Furthermore, in order to advance the role and leadership of youth in the environmental field, the NEJAC and EPA should continue to create opportunities for future Youth Work Groups that focus on issues related to environmental justice, general public interest, and inter-agency coordination to expand on the wisdom gained from tasking youth with such critical charges. The EPA and the NEJAC should also consider having youth representation on the NEJAC itself, or add age as an additional diversity criterion when selecting members.

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Principles of Youth Engagement on Climate Change

Building on the Legacy of the Jemez Principles for Democratic Organizing and Principles for Environmental Justice



1. Let Youth Speak For Themselves

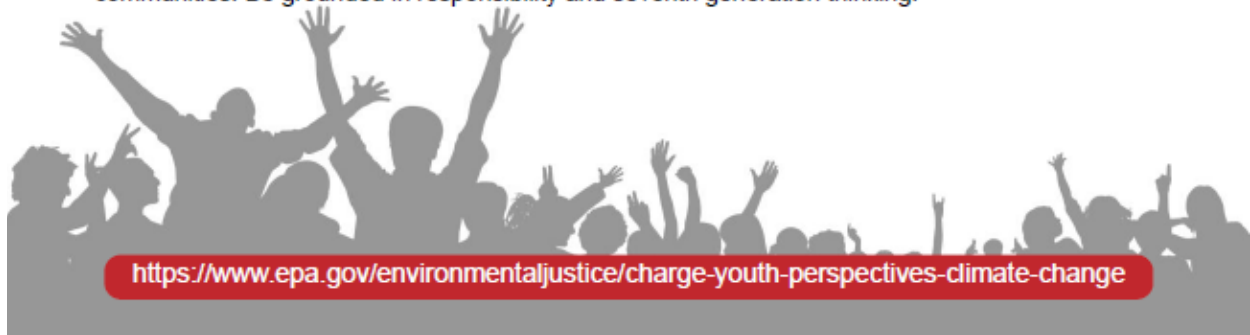
Prioritize working with partners with inclusive representation and frontline community-based youth hiring practices. Require climate change and public health grantees, staff, boards, federal advisory bodies, and other decision-making tables consist of at least 20% from impacted communities. Create youth advisory work groups for every government agency. Affirm work that matters to young people and aligns with their values.

2. Invest in Rising Leadership

Pay young people at a living wage for research, organizing, and education work, including internships and apprenticeships. Increase accessibility to climate change curricula especially outside higher education institutions, allocate resources for transportation, internet connectivity, language, and communication barriers. Provide trainings for grant-writing and civic engagement skill-building. Fund and facilitate professional development and scholarship to develop technical competency to be fully knowledgeable in the various aspects of climate change and climate justice.

3. Uplift Intergenerational Collaboration

Allow change to happen at the speed of trust and apply respect and recognition in both directions. This also requires a willingness by organizations to learn from youth, especially when it comes to storytelling, movement-building, and technical training. An exchange of knowledge and expertise can combat inequitable power dynamics of ageism and credentialism that often lead to competing, co-opting, or providing inconsistent funding to successful youth work. Work with partners that have already gained the trust of local youth leaders if there aren't already established youth-led spaces. Review internal practices and retention of youth, particularly those of intersectional identities, including but not limited to women and LGBT people of color and those from overburdened communities. Be grounded in responsibility and seventh generation thinking.



<https://www.epa.gov/environmentaljustice/charge-youth-perspectives-climate-change>



Introduction

A Brief History

Building on the origins of the American Environmental Justice movement in North Carolina in 1982⁴ and the call for systematic changes in climate governance from the Global South in the 1990s⁵, the youth climate justice movement has emerged as a major force on the streets of Copenhagen, Paris, and New York⁶, on the crossroads of pipelines in North Dakota and Virginia, in the sacrifice zones of the Gulf⁷ and the rural West, on reservations and tribal lands, in Appalachia⁸, and beyond. Young people are lobbying and intervening in international negotiations, mobilizing masses against unjust policies and projects, and building more democratic and distributed renewable energy systems. In recent years, we have countless students demand their universities to divest their endowments from fossil fuels,⁹ witnessed black and brown youth shut down plans for dirty coal plants and incinerators, and heard the call of indigenous youth to keep fossil fuels in the ground for the Seventh Generation.¹⁰

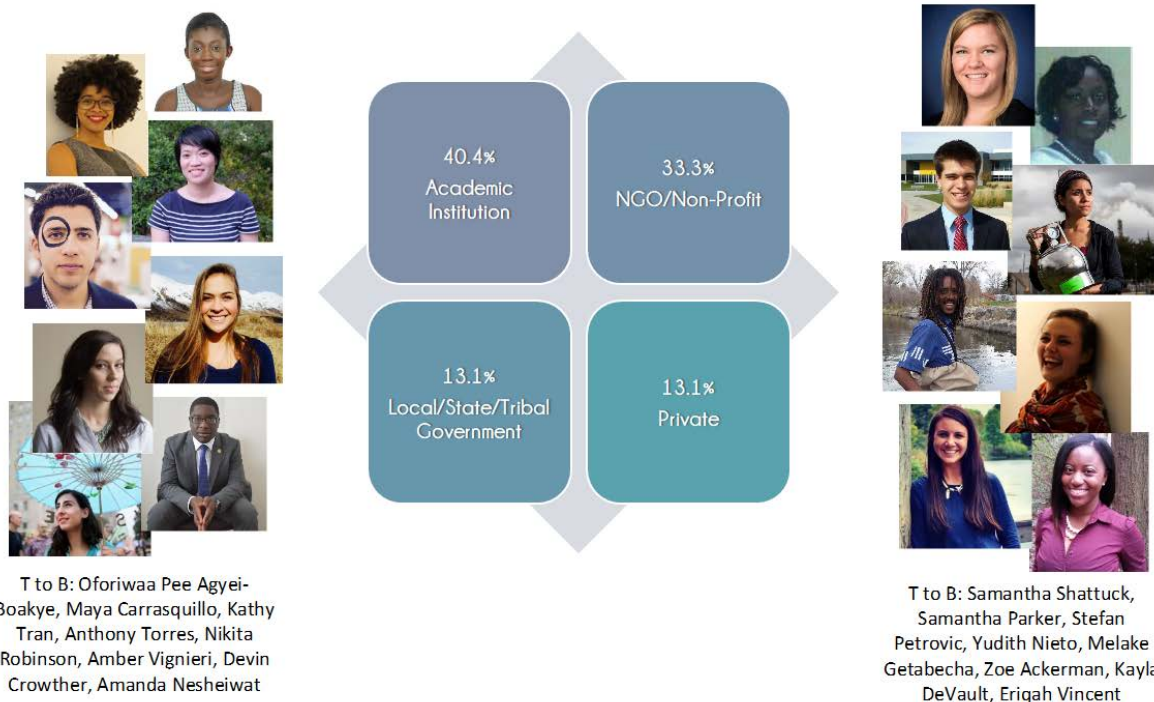
When investments are made in infrastructure and sustainable development with the goal of adapting to the impacts of climate change, such as sea level rise or increased heatwaves, climate justice advocates fight for the equitable distribution of those funds. Climate justice also demands greater spending to address the subsequent health impacts of climate change, such as vector control and energy bill assistance to maintain air conditioners during increasingly warmer summers. As adaptation to climate change becomes an inevitable part of the American trajectory, climate justice advocates fight to ensure that all Americans have equal protection under the law and equal access to life-saving and quality of life-improving programs and technologies. It is our generation, and those that follow, that will be living with the consequences of our actions—and inaction. Driven by the fact that younger generations have everything to lose and, thus, demand a more equitable and just world, increasing numbers of young people across all sectors are uniting. Young leaders realize that climate change is not simply an environmental problem but rather intersects social, economic, and political issues.

Not only are young people articulating what they are fighting against, but also elevating what they are fighting for. From convening at Power Shift¹¹ summits across the country, to mobilizing for the People's Climate March¹², young people have created the momentum to build a more sustainable, equitable, and just world. Their leadership has held culprits accountable, their empathy has revitalized our public connections to the natural world, and their innovative ideas have helped communities and ecosystems adapt to the climate crisis. Internationally, young Americans have joined youth from other countries at the United Nations Convention on the Climate Change Conference of Parties (COP), at the Conference of Youth, and at hundreds of other demonstrations and events across communities.

Youth have always been on the frontlines of climate action. Herein "youth" is defined as young people, ages 14-29, whose life stages are between middle school and young professional. The term youth more generally refers to the millennial generation (also generation Y) and beyond, which encompasses the demographic of youth who have reached young adulthood in the early 21st century. Research¹³ illuminates the importance of young people as critical stakeholders in the fight against climate change, while recognizing activism and citizen science as distinct pedagogical practices¹⁴ that have expanded the environmental justice movement. Yet, historically, youth voices have been largely absent from the policy decision-making table, despite youth having to live with the consequences of our collective action and inaction.

Work Group Composition and Selection

The Work Group was formed by the NEJAC, in collaboration with the OEJ, as part of their effort to fulfill the Environmental Justice 2020 Plan. As a goal within the Plan, they wanted to "include the perspectives of young people in the conversations and thought processes about how overburdened communities are disproportionately impacted by climate change and share in the distribution of opportunities that enhance resiliency." This included the long-term goal of creating a model for youth engagement across NEJAC work groups and other EPA and federal agency advisory boards. By late 2015, the NEJAC and the EPA's OEJ collaborated to put out a call for applications and spent several months selecting the youth who would form the inaugural Work Group. Among the 300+ youth across the country who applied, sixteen emerging leaders were selected to serve on the new body, which was announced on March 16, 2016.



Work Group members hail from across the country and range from 19 to 29 years old. The Work Group is diverse in race (including 3 Native Americans), but not in gender, with just 4 of 15 members on the Work Group identifying as male. Members offer experiences in academic research or work in sectors including public, private, nonprofit, tribal, or non-governmental entities. Members fight climate change impacts and support communities in various ways, such as rallying against poor climate and adaptation policies, or building capacity among youth to give them the tools to care for the environment and their communities.

- **Amanda Nesheiwat:** a UN Representative for the Foundation for Post-Conflict Development and Environmental Director for Secaucus, New Jersey
- **Anthony Torres:** activist supporting cross-movement building and political organizing from Washington D.C.
- **Kathy Tran:** graduate student who collaborated with vulnerable populations nationally and internationally on health and climate adaptation while pursuing her MPH and current doctorate
- **Devin Crowther:** undergraduate who has presented critical research at national conferences
- **Amber Vignieri:** Communications Coordinator at Elevate Energy working to ensure that the benefits of clean and efficient energy use reach those who need them most
- **Eriqah Vincent:** serves as the National EcoLeaders Coordinator with the National Wildlife Federation
- **Kayla DeVault:** a graduate student designing a program on her Native reservation to allow students and professionals to work with tribal communities on climate adaptation and sustainability projects
- **Maya Carrasquillo:** a graduate student in Florida working with climate-vulnerable communities to provide multi-functional infrastructure solutions for improved health
- **Yudith Nieto (Vice Co-chair):** works with groups nationally and internationally to build inter-generational movements that advocate for environmental justice
- **Oforiwaa Pee Agyei-Boakye:** has worked internationally on a climate change campaign in Ghana

- **Samantha Shattuck (Co-Chair):** led workshops on youth engagement at the UN Climate Change Conference in Peru and works on the integration of environmental justice and health impact assessments
- **Samantha Parker:** served as an international delegate in Paris for the UN Climate Change Conference
- **Zoe Ackerman:** campus coordinator with the Rachel Carson Council
- **Nikita Robinson:** graduate student who continues to work with her tribal community to combat the impacts of climate change in Alaska
- **Melake Getabecha:** building climate resiliency in the Metro Denver Region and engaging urban youth from low-income households in the environmental field through employment
- **Stefan Petrovic:** undergraduate who co-founded a youth initiative emphasizing climate activism

The following are the members of NEJAC directly involved with the production of this report:

- Richard Moore, Co-Chair
- Dr. Fatemeh Shafiei, Vice Co-Chair
- Cheryl Johnson
- Dr. Rosalyn LaPier
- Lisa Deville
- Dr. Charles Chase
- Dr. Mildred McClain
- Dr. Erica Holloman

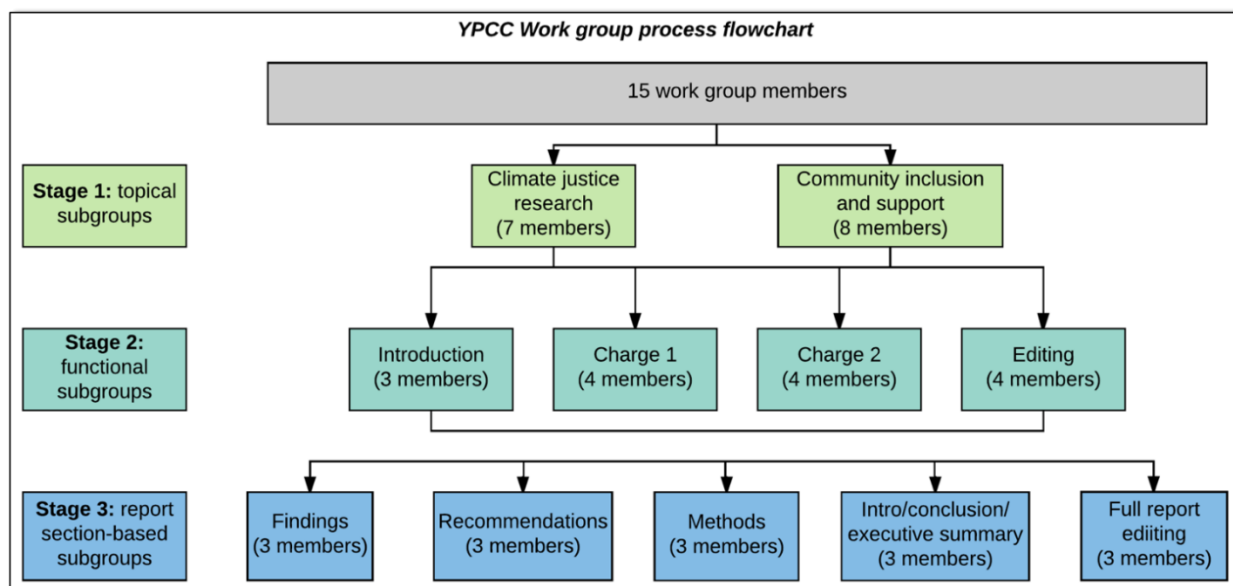
The Youth Group Report

This report reflects the Work Group members' experiences and those of their partner organizations or collaborators in work throughout the United States. Members do not represent the organizations they work for or collaborate with; they represent themselves and the culmination of their experience and dedication. Themes and lessons learned were generated both by the Work Group (from the membership questionnaire) and case studies (products of in-depth interviews to inform the Work Group's recommendations). The recommendations found in the following sections are meant to help the EPA, civil society organizations, and communities authentically and effectively engage and uplift youth leadership in the struggle against climate change. As mentioned, the power and leadership of young people has been critical to the success of social movements and are necessary for agencies like the EPA and organizations to integrate these effective strategies to combat the climate crisis. This Work Group serves as a model for how policymakers and civil society actors across agencies and sectors can create space for youth voices and, in turn, amplify and advance the goals of social, economic, and environmental justice.

Methods

Work Group’s Iterative Structure and Process

The Work Group was provided with two charges and nearly complete liberty but without much structured guidance as to how to address them. Through a democratized process of voting, the Work Group assumed various sub-group structures. For the first six months, the membership split into two groups to discuss the ways in which research and community inclusion efforts are currently being utilized to fight climate change. The research team developed and implemented a survey of all members about their experiences working with youth or vulnerable populations on climate change issues, and then the team analyzed the results during Stage 1. Stage 2 developed when the Work Group began to develop the report. In Stage 2, members split up into the following writing or research sections: the introduction, a group for charge 1 (given by the EPA, see the Executive Summary), one for charge 2 (see Executive Summary), and the editing team. During Stage 2, in-depth interviews of individuals from some member’s organizations were conducted to develop case studies with themes that reflected each charge—youth engagement on climate justice and efforts to address health vulnerabilities to climate change. After presenting the first report draft in April 2017, the Work Group split into groups by section of the report to streamline the finalization of the report.



Data Collection Tools and Analyses

To develop best practices for youth engagement on climate justice with particular focus on building resiliency and adaptation within overburdened communities and health vulnerabilities, a survey and in-depth interviews were conducted. We gathered perspectives and experiences from Work Group members and affiliates. Across both data collection tools, thematic analysis was performed to discern common innovations, challenges, and strengths of ways to engage youth and vulnerable communities while addressing climate change.

Internal Survey

As our Work Group members possess a wealth of knowledge and were selected for their diverse backgrounds, a survey was designed to collect information on members' experiences and perspectives before connecting with other organizations. Survey questions consisted of both closed-ended and open-ended questions. Questions focused on members' current and previous work experiences within the climate change arena, communities that they serve(d) or engage(d) with, tools to help disadvantaged populations build climate resiliency, and strengths and challenges of working with youth or vulnerable groups. As in-depth interviews were pre-planned, members were also asked to recommend their own or other organizations they were familiar with for subsequent interviews. The survey can be found in the Appendix. After several drafts and consultation from NEJAC advising members and Climate Justice Research sub-group youth members, the final version was created on SurveyMonkey and disseminated via email to youth members. All members participated in the survey within two weeks.

In-Depth Interviews to Develop Case Studies

As many of our members have engaged directly with youth or vulnerable communities on climate change-related work, five Work Group members conducted in-depth interviews within their organization, community, or with their affiliates. A general interview guide was first created with broad questions covering an interviewee's position and organization they work for, experiences in working with climate change issues that involve youth or disadvantaged communities, meaning of authentic engagement, best practices, and challenges. Interviewers then improvised as they prepared for and during their interviews. A guide for contacting organizations was also created to help interviewers initiate contact and introduce our Work Group and the purpose of the interview. Usage of the guides was at the discretion of the interviewer. Most interviewers used or improvised the guide for organizations they were not directly involved with.

The organizations were selected based on interviewers' own affiliation or referrals. Interviews were conducted via email (in the form of a questionnaire), a phone call, an in-person meeting, or a combination of those methods. Two or more people, some including the Work Group member, were interviewed for each featured organization or community. Notes or a voice recording were taken during the interviews and then some later transcribed. Interviewed organizations and groups include: Groundwork Denver, Sustainable Jersey City, Town of Secaucus, Steven's Institute of Technology, Navajo Nation/Youth, Alliance for Climate Education, Harambee House, and the East Tampa Community Revitalization Partnership. Rather than focus on the individual that was interviewed, case studies were developed for these organizations and communities based on information gathered through the interviews, which can be found in the Appendix.

Analysis

To address each of the two charges, thematic analysis was conducted across both the survey and interviews to identify key themes to develop findings and recommendations of best practices and climate change adaptation and resiliency tools. Two analysts were assigned to each charge to review case studies and one analyst for the internal survey. A profile of members was also developed from the survey.

Findings

Background

Climate change is often referred to as the crisis of the 21st century, and the increasing threat of global temperature increases, sea level rise, extreme weather events, and species extinction can be overwhelming. The ways in which we address this crisis will shape the future of our planet for centuries to come. The political capital and billions of dollars invested in the current economic system based on fossil fuel extraction and combustion, industrialized agriculture, and deforestation can prevent many from embracing systemic alternatives and lifestyle changes necessary to truly mitigate climate change. Younger people are frequently less mired in the status quo and therefore can create unique and transformative efforts to address these significant issues. It is this moral clarity, passion, creativity, and vision that the climate justice movement needs.

Internal Survey

By examining the expertise held within our Work Group and analyzing environmental justice organizations we work with and represent, we discovered common themes and best practices around engaging youth. This section highlights those examinations and findings and uses them as the context and justification for our recommendations.

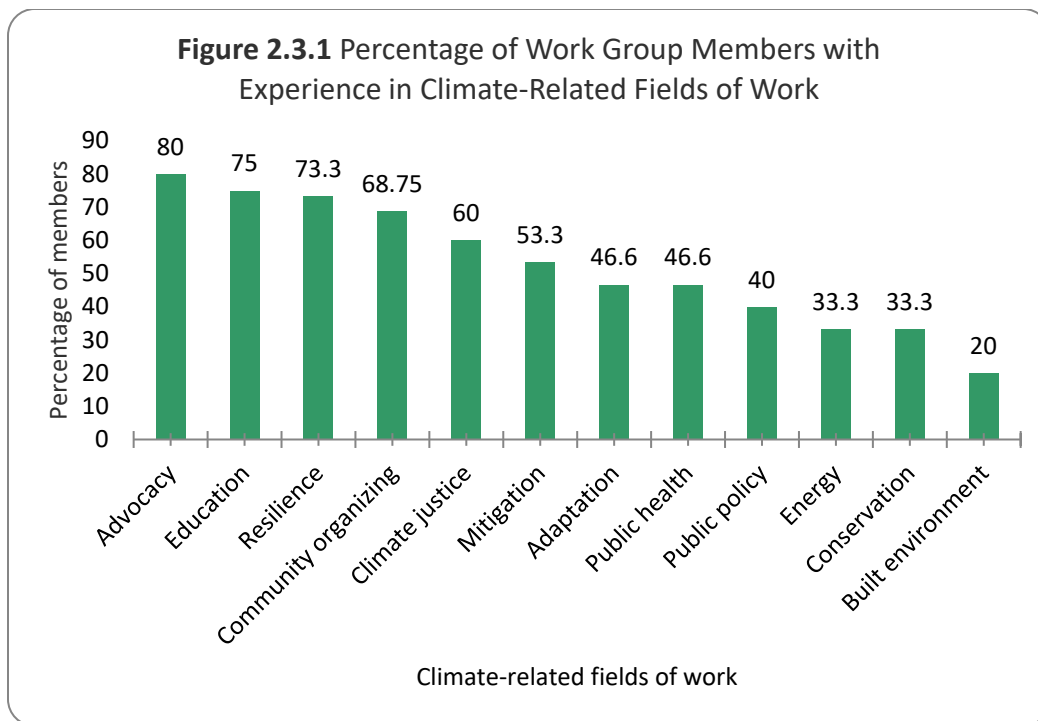
The recommendations of this report were shaped by: the experience of Work Group members, an examination of familiar organizations, and several case studies of organizations Work Group members were affiliated with.

Work Group Composition

Hailing from every region of the country, our 15 Work Group members draw knowledge from the following organizations, institutions, and communities:

- Diné Policy Institute of the Navajo Nation
- Qawalangin Tribe of Unalaska
- Pegasus Technical Services
- Town of Secaucus, New Jersey
- Elevate Energy
- Groundwork Denver
- Harambee House, INC./Citizens for Environmental Justice
- National Wildlife Federation (NWF)
- Rachel Carson Council
- Sierra Club
- SustainUS
- Texas Environmental Justice Advocacy Services (t.e.j.a.s.)
- Florida Agricultural & Mechanical University
- Harvard University
- Stevens Institute of Technology
- University of California, Berkeley
- University of Pennsylvania
- University of South Florida

Representative sectors include non-governmental organizations (33%), grassroots organizations/community groups (27%), academia (27%), federal government, and tribal/indigenous government. The types of work that Work Group members have done with these organizations are varied and diverse in their approach to climate issues. Figure 2.3.1 illustrates the issues Work Group members focus on, ranging in percentage of members from advocacy (80%) to issues around the built environment (20%).



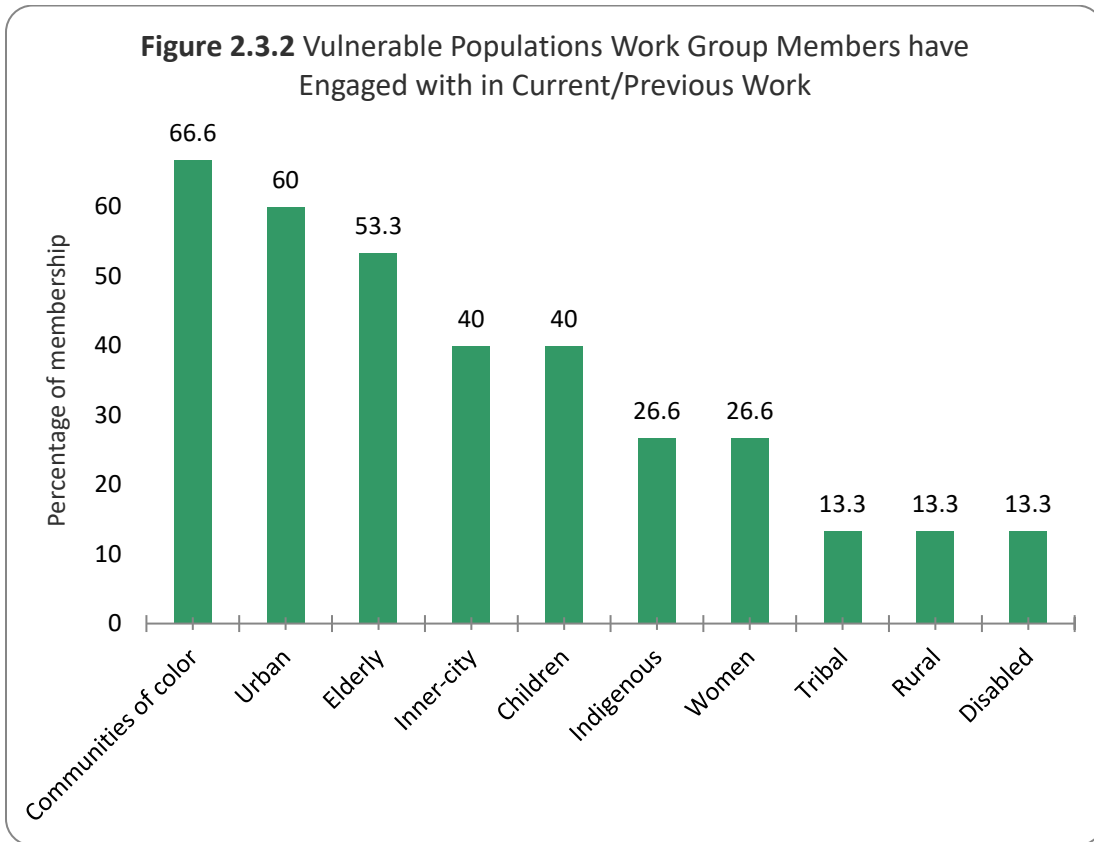
The majority of Work Group members have experience working in climate change/environmental advocacy (80%), education (80%), resilience (70%), community organizing (70%), climate justice (60%), and climate mitigation (53.3%), and a significant amount of members have experience in climate change adaptation (46.6%), public health (46.6%), public policy (40%), energy (33.3%), conservation (33.3%), and the built environment (20%).

Several members currently work or previously worked on climate adaptation and resiliency projects with diverse tribal, local, and global communities. Activities include developing climate action plans, designing and implementing educational workshops, capacity-building through conferences, and building infrastructure. Examples of this work include:

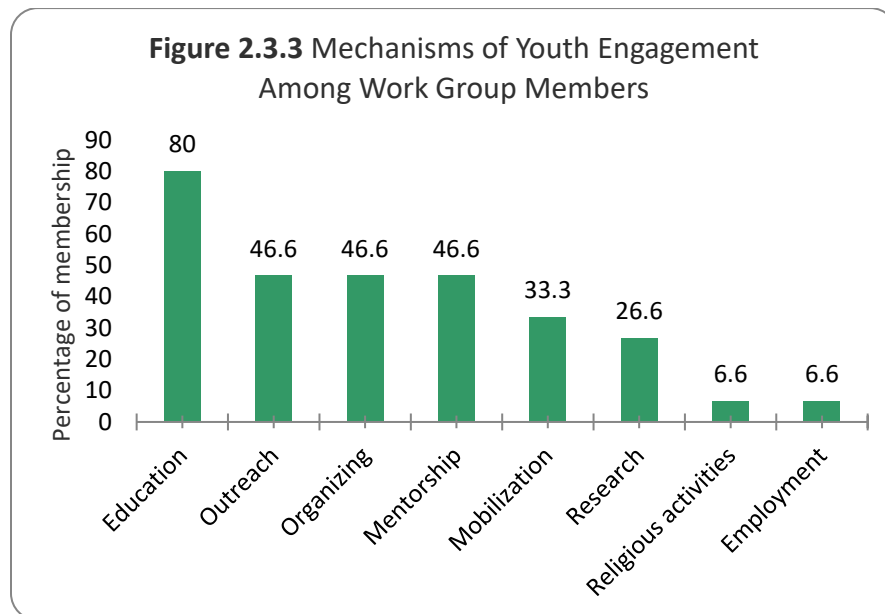
- “Working with grassroots organizations/tribal entities to utilize and validate traditional ecological knowledge to create a set of best practices. These best practices are applied to community resilience issues.” [Work Group Member Stefan Petrovic]
- “[Working] alongside communities in Long Island seeking to rebuild after Hurricane Sandy and work[ing] to support communities and young people across the country resisting climate impacts.” [Work Group Member Anthony Torres]
- “Working with local communities and faith-based organizations in East Tampa to develop green infrastructure models that mitigate and address concerns of environmental justice relating to

health disparities and contaminant removal.” [Work Group Member Maya Carrasquillo]

All members have served or are currently serving local vulnerable populations to address climate change, particularly minorities and in urban settings. As shown below in Figure 2.3.2, these groups consist of communities of color (66.6%), urban (60%), elderly (53.3%), children (40%), inner-city (40%), indigenous (26.6%), women (26.6%), tribal (13.3%), rural (13.3%), and disabled (13.3%) populations.



Work Group members have engaged these communities through education (80%), outreach (46.6%), organizing (46.6%), mentorship (46.6%), mobilization, research, religious activities, and employment (see Figure 2.3.3).



Nearly all members have also supported or collaborated with youth in various communities and capacities. Populations that have been served include high school students (67%), college students (60%), communities of color (47%), young professionals (40%), inner-city dwellers, urban dwellers, indigenous/tribal, religious, and rural dwellers.

Case Study Organizations

Case studies also contributed to the recommendations and principles highlighted in this report. Below are brief summaries of the case-study subjects and some recommendations drawn from each study. Full case studies can be found in the Appendix.

Alliance for Climate Education

The mission of the Alliance for Climate Education (ACE) is to educate young people on the science of climate change and empower them to take action for climate justice. ACE's current work is rooted in educating and training emerging leaders in public high schools. They aim to create a culture shift toward climate action by teaching science that "puts teenagers at the center of the story" and cultivating leadership qualities in a diverse national network of youth.

Recommendations from this case study include: drawing from collective knowledge through interactive and group-based curriculum, partnering with grassroots organizations that have capacity and/or history of allowing youth to play a central role, and using the Self/Us/Now model of storytelling to politicize the personal and connect vulnerable communities.

Groundwork Denver

Groundwork Denver is an environmental nonprofit that addresses inequities in environmental health, public health, and climate impacts by improving the physical environment through community partnerships and actions. This mission is manifested in many different ways which include providing

residents with free home energy audits and efficiency upgrades; transforming brownfields into natural parks; providing incentives and education around alternative modes of transportation; free tree and bicycle giveaways; growing and distributing fresh, healthy produce; urban water and air quality monitoring; park and alley cleanups and activation; climate change resiliency planning; and a youth work and education program which employs youth from low-income households to help implement these improvement projects.

Recommendations from this case study include: providing incentives for youth (especially pay if possible), seeking out youth where they reside and spend time, being flexible and adaptive to embrace new opportunities, and empowering youth rather than framing them as victims.

Harambee House, INC./Citizens for Environmental Justice

The Harambee House, INC./Citizens for Environmental Justice (HH/CFEJ) is a Savannah-based nonprofit with nearly two decades of practice helping people create safe, healthy communities that promote wellness, environmental justice, and sustainability. Their mission is to educate, inspire, organize and build the capacity of African Americans and other communities of color to create and sustain economically vibrant neighborhoods that promote healthy living, wellness, environmental justice, and sustainability.

Although much of their work is intergenerational, HH/CFEJ targets and engages high school students, college students, and college-aged youth through education, leadership development, research, awareness-raising, outreach, surveys, participation in the Conference of Parties process, and policies and programs that will impact environmental justice communities.

Recommendations from this case study include: deploying knowledgeable youth into communities to raise awareness, entering into communities with an open-mind expecting to learn, communicating with communities on their level, addressing the interaction between young people and elders, and making a direct correlation between effects of climate change and how it will affect the community.

Navajo Nation—Various Organizations

The Navajo Nation has a population of around 180,000 people and an enrolled membership of over 300,000 who inhabit much of the Four Corners region (Arizona, New Mexico, Colorado, and Utah). This case study looks at how several communities have defended cultural and environmental rights and supported youth. Organizations and movements mentioned include: Diné Citizens Against Ruining our Environment (C.A.R.E.), Black Mesa Water Coalition, Ancestral Lands project, Dooda Fracking!!, Navajo Nation Youth Council, Center for Native American Youth, and American Indian Science and Engineering Society.

Recommendations from this case-study include: respecting traditional wisdom and cultural perspectives, building movements through similarities of marginalized communities, providing flexibility to culture and ethnic identification, seeking out youth in marginalized communities, and providing funding to key programs.

East Tampa Community Revitalization Partnership

The East Tampa Community Revitalization Partnership (ETCRP) was developed as a nonprofit in response to the community's designation as a community redevelopment area (CRA) focused on improving economic justice and development in the area. The ETCRP serves as the direct linkage to the community to ensure that resident voices and expertise are prioritized in the development of the community. Since

2004, most of the investments made have been focused on improving the physical infrastructure, mainly roadways, stormwater infrastructure, and recreational facilities. Although the ETCRP operates as an overall community organization, more recently an emphasis has been placed on engaging and training youth and providing youth learning spaces to ensure the continuity of these efforts in future generations.

Recommendations from this case study include: engaging in shared learning with community residents and experts, allowing climate justice to be influenced by work in other social justice movements, and youth leadership develop rather than just exposure.

Common Themes for Effectively Engaging Youth and Diverse Stakeholders

Work Group members come from diverse backgrounds with various professional and academic experiences working on climate change-related projects. Our members have observed, participated in, initiated, or supported various projects, youth-driven or otherwise, aimed at addressing climate adaptation and resilience and/or climate-related health vulnerabilities. Through analysis of both the internal survey and case studies, the following core themes emerged as crucial elements for achieving project goals:

- Engage with communities and youth authentically;
- Put communities at the forefront;
- Provide and compensate youth for work that matters to them, their future, and their values;
- Allow for and support diverse voices and skillsets;
- Create an environment of shared learning within the community;
- Provide an environment that builds relationships; and
- Meet youth and communities where they are.

Authentic Engagement

Whether climate adaptation and resilience building involve youth or vulnerable populations, all our members and organizations studied stated that authentic engagement is a key to success as it supports the establishment of sustainable relationships. Authenticity involves the following elements:

- Acknowledging that climate change impacts are diverse and place-based by collaborating with grassroots leaders to identify specific impacts uniquely experienced within communities
- Providing insight and education to community members
- Empowering youth to disseminate information to their networks and to take action via educational opportunities
- Accessing and inspiring youth through the utilization of diverse platforms
- Using appropriate and diverse forms of engagement
- Providing opportunities for education and resource exchanges
- Allowing communities to organize themselves in ways that best serve them
- Being transparent and honest about motivations, roles, and capacity (i.e. what can and cannot be provided) in collaborations
- Respecting and acknowledging the power of oral traditions in communities that operate in such a way

- Building long-term relationships based on mutual respect and co-learning with the goal of individual and community capacity-building and systemic change
- Recognizing community resources as well as the lack thereof
- Allowing community members to maintain ownership over the objectives and processes of collaborative efforts when working as a member outside of the target community
- Asking questions and being willing to change perspective rather than assuming an authority over community matters
- Being open to changing perspectives, approaches, or methodologies when appropriate
- Approaching communities about developing climate actions related to issues within the communities early on in the process, often, and through many different outlets

Putting Communities at the Forefront

Discovered in the internal survey, Work Group members are passionate about ensuring that communities are at the forefront of climate justice movements, both in the creation and implementation of solutions. The organizations discussed in the case studies have partnered with youth from frontline climate justice communities; when these young people are able to represent their own communities, the benefits multiply.

The Groundwork Denver youth employment program is an example of how youth working in their own community can lead to multiple benefits. By having youth improve their local environment, they gain confidence in themselves and their community sees value in their ability to contribute. Many Groundwork Denver youth mention that their favorite part of their job is how they help out their community. By providing these opportunities for youth to represent and work with their own neighborhoods, as well as possibly get to know communities different than their own, organizations create a pathway for young people to engage with aspects of climate justice they find highly important (such as building relationships and community health).

Compensation

Another key factor identified in the internal survey and case studies is the importance of compensation and leadership development among youth. Institutions like the federal government, local governments, and universities can support the development of future leaders by providing paid opportunities to develop these leadership skills. Without compensation, young people have to make difficult decisions when prioritizing the type of work they can accept; some unpaid opportunities provide better experience and networking access but they may choose a less advantageous position in order to meet their basic needs.

Compensation for work also promotes diversity, equity, and inclusion in the field as there is a divide between students who can afford to work without compensation because they have the financial backing of their parents and other students who may lack that support or may be first generation students or professionals. The divide between more affluent and less affluent young people widens as the former are able to get into positions where the non-financial benefits like experience and networking access further promote them into greater positions in the field. Less affluent students who have to spend their time working in positions that meet their basic necessities are more at risk of being left out of this professional development ladder.

When organizations create programs, trainings, or opportunities for young people to enhance their leadership skills, youth feel empowered to be confident climate leaders. Work Group Member Kayla DeVault explains that from her experience, incentives show respect and value for the time and

knowledge of young indigenous people, specifically for those who may have far less opportunities than their non-indigenous counterparts. It is also important to consider how these incentives manifest themselves and if that means of compensation is culturally appropriate for the work that is being done.

Youth Leadership Development

The most effective leadership development efforts all encourage exploration of ideas, communication, and action around climate change through equity, justice, and optimism lenses. Youth are also encouraged in these programs to build awareness among their peers, schools, families, and local communities about climate change and its interconnection to justice issues through their own spheres of influence. This allows youth to operate at the center of a network they are familiar with and helps inform their direction on how to organize, educate, and explore climate justice.

For example, in the case of the East Tampa Community Revitalization Partnership (ETCRP), various collaborative partnerships with the University of South Florida, local schools, and local nonprofits prioritize youth education, training, and development to ensure that residential students are equipped with the necessary skillsets to improve environmental and infrastructural challenges in their neighborhoods.

As youth are supported and they develop their voice and skills for leadership, elders in the movement must remain engaged in the decision-making process as they possess extensive cultural wisdom. Furthermore, it is important to realize many indigenous youth-led groups may still require intensive networking with elders in their communities as a means of maintaining their cultural understanding of authentic leadership and effective change.

One example of this is highlighted in the case-study focused on the Navajo Nation. The study mentions how Diné College and the Navajo Nation Youth Council worked together to host a Youth and Elders Program where youth sat with the Nation's oldest citizens and "every topic was covered from environmental issues, language loss, and (...) such contemporary issues as gay marriage and LGBTQIA+ rights from a traditional perspective." These leaders also bring years of experience in the environmental justice and social justice movements, often starting with the civil rights movement or before. Young people, in their rise as leaders, should continue to value, respect, and learn from the lessons of their elders.

Respect for Diverse Identities, Voices, and Skillsets

Many organizations provide youth with an opportunity to speak about their own experiences with environmental and climate justice issues, such as the health impacts related to climate change, the fossil fuel industry, and siting of chemical plants, both formally and informally. Providing a space for young people to have their voices heard—by each other, their community members, elected officials, or the media—allows youth to be part of the climate justice story and to show external audiences that youth are passionate and willing to take action on climate change.

The importance of respecting diverse experiences and cultural wisdom that young people bring from their community was also identified as a key factor of successful coalitions to other environmental issues. By giving youth the space to embrace and express their diverse backgrounds, they feel much more supported and encouraged to take on leadership positions. One example comes from Work Group Member Nikita Robinson:

"One overlooked method of collecting essential evidence of climate change and environmental changes is the practice of obtaining data from Traditional Ecological Knowledge (TEK). Many researchers and

stakeholders ignore the vital information that elders have obtained over many decades. As part of the Alaskan culture, information is passed down onto accountable generations. Natural resources are a key component of everyday life in the livelihood of many Alaskans. Ask any elder on how resources have drastically changed, you'll be astounded. (...) Many Alaskan communities are raising young and advantageous leaders to help combat climate change and those individuals are rapidly spreading environmental awareness. Having young Alaskan natives representing a state that is at the forefront of various environmental challenges is essential to help maintain a sustainable future, and keeping cultural values alive. Values and beliefs can be easily lost in communication when passed on to individuals from outside of the affected community. The youth and the remaining community are currently living in a rapidly changing environment where climate change is not only affecting their livelihood, but their subsistence food and cultural resources. It is fundamental to include the affected communities as stakeholders in the planning process of climate and environmental justice initiatives."

Meeting Youth and Communities Where They Are

Another common theme that arose is understanding that communities have their own unique economic and social challenges. Youth face specific impacts in their communities and thus have different challenges and barriers to addressing them. While the impacts of climate change can greatly affect vulnerable communities, the importance of and knowledge about these issues may not be priorities for populations that will be most impacted. Intentionally and thoughtfully engaging with young people in vulnerable communities requires meeting them where they are, both literally and figuratively, and working with them on projects they prioritize.

Since the youth population spans a large age range, outreach must take place on multiple platforms to effectively and inclusively reach all sub-populations. Widespread mobilization requires attracting youth from all over the U.S. who possess diverse backgrounds and care about various issues surrounding climate change. Yudith Nieto, for example, found that "using mixed media, digital art, music, and theater in outreach efforts is always effective to gauge the level of interest and participation" and "recording and preserving stories and traditions" is important when working with tribal communities. Others have successfully lead outreach efforts through "established bodies like schools, perhaps churches or other community organizations, [since these] spaces (...) can support youth activity on these issues," as such organizations are a part of their daily lives.

These organizations utilize a diverse set of tools to engage youth. A survey of these organizations' methods show the use of education, mentorship, writing letters to news publications and elected officials, political lobbying, door-to-door canvassing, implementing physical improvements, collecting petition signatures, participating in citizen science, attending rallies and events, testifying in public hearings, speaking publicly at events and to the media, recruiting peers for events, and providing youth with talking points and conversation skills when having one-on-one discussions with friends and family about climate justice issues. These varied tactics all give youth concrete experience taking action and build their self-confidence so they can be an instrumental part of the fight to improve community resilience in the face of climate change. This wide variety of opportunities also provides youth who have different skills, interests, personalities, and backgrounds with more opportunities to get involved.

Another tool in particular used by these organizations engages youth through a medium dominated by young people—digital and social media. Ongoing digital and social advocacy engagement strategies use campaigns via email, Facebook, Twitter, YouTube, and other sources to connect with youth both hyper-locally and globally. These channels allow youth to find on-the-ground action happening in their local community and also learn about current issues happening elsewhere, such as the Dakota Access Pipeline

and the corresponding social media campaign “#NoDAPL.” These channels also allow youth to amplify messages of climate justice by sharing with their personal networks.

Recommendations

There are many obstacles that limit the full appreciation, affirmation, and empowerment of youth around climate justice in the broader environmental community. Youth from vulnerable communities face a multitude of economic, social, and environmental problems, and can feel unseen and abused in exploitative partnerships that seek to tokenize rather than engage genuinely. This Work Group’s goal is to provide recommendations that empower youth from vulnerable communities by building representation and inclusion in all levels of the environmental field through diversity, equity, and inclusion.

These recommendations address how the EPA, foundations, community organizations, educational institutions and others can invest in and further youth engagement in climate change and health vulnerabilities. Each recommendation will be based on recorded challenges to youth engagement on climate justice and specific best practices (from case studies and group knowledge). The purpose of these recommendations is primarily to strengthen collaboration between youth from vulnerable communities and the EPA. Secondly, these recommendations can be used by organizations, institutions, and generations hoping to foster deeper youth engagement on climate justice.

While this document refers to “youth” and “communities” as encompassing categories, we also recognize that neither are monoliths. Recommendations and principles should therefore be tailored to specific geographic and cultural contexts. For a quick reference, see the Principles of Youth Engagement Graphic and the list of recommendations in the appendix, beginning page 31.

Mentor and Train Youth Leaders and Engage Youth in Decision-Making

Main recommendation: EPA should establish a floor of participation for diverse young people with the goal of including youth at more levels of decision-making by:

Supporting organizations with inclusive representation and community-based youth hiring practices

- *Recommendation: require that climate change grantees, staff, and board consist of at least 20% youth from impacted communities*

The expertise and wisdom of youth comes from a broad range of lived experience, not solely through formal education. Therefore, it is imperative not to privilege only Western-defined, traditional applicants. Some organizations, such as the Alliance for Climate Education (ACE), have an intentional process for selecting fellows, who ACE then trains to be climate leaders. ACE recognizes that young people have different ways of expressing themselves, and in the application process, they search beyond the “4.0” environmental student who is already supported. They focus on young people who are new to climate science and health, but may understand climate impacts on a visceral level and/or have never engaged in a leadership program. ACE aims to make these spaces as diverse in identity as possible, as they believe such groups will achieve the most profound impact. The organization recruits primarily from Title I^{xv} schools which have high percentages of children from low-income families. ACE looks for

diversity characteristics in fellows including, but not limited to: gender identity and expression, race and ethnicity, varying ranges of English fluency, educational background, and geographical diversity.

For many of the organizations studied, deeply-engaged youth advocates are hired from and rooted in their own community. ACE Action fellows, t.e.j.a.s. youth organizers, and Groundwork Denver hires are all firmly rooted in their communities, and therefore have established trust, which serves as the base for shaping and building broader campaigns. This allows for organic youth-owned strategies to engage young people differently and raise awareness around climate justice and health disparities in underrepresented communities.¹

Even organizations that do not focus on youth development or training in their mission statement should prioritize youth membership in their organization and leadership structure as a way of operating more in line with the tenets of climate justice. Developing future employees and leaders in the environmental field, especially those from under-represented backgrounds should be well articulated as a goal of the EPA and the 20% rate of engagement of youth in an organization's functioning may serve as an appropriate threshold to develop these young leaders.

Providing trainings and grants for organizations to employ storytelling and other youth engagement strategies

- *Recommendation: create "Storytelling 101" webinars in partnership with youth organizers*
- *Recommendation: offer trainings on gathering stories and experiences from community members and fellow youth (i.e. how to conduct interviews and document oral histories)*

Youth often struggle to find a space where their perspectives are heard, especially in large social movements or institutional settings. Their age and diversity of identity, experience, and opinion are all assets. If given appropriate avenues of expression through storytelling, active listening, and other interactive techniques, they can bring originality and insight to the organizations they work with.

For example, as an advocacy organization, SustainUS recognizes the power of individual and collective storytelling on international platforms. SustainUS sends delegations of young people to the United Nations climate negotiations to speak from each of their own complex, unique, and interweaving experiences. This approach provides space for developing true common cause among young people and diverse constituencies, and influences large governing bodies and movement spaces. They also support domestic efforts to educate and mobilize high school and college students through organizations like the Sunrise Movement.²

In a similar fashion, at ACE, each fellow creates a "Story of Self," or a public narrative. Youth form their stories through a guided process built around a moment of struggle. ACE offers a space to share and listen, and then integrates the narratives into their organizing and outreach. The organization views storytelling as a way to place young, marginalized voices front and center and to tap into young people's moral authority on climate change. ACE fellows were also trained to give testimony at public hearings on

¹ A survey of our own Work Group members demonstrates that two-thirds of members work in communities of color and more than 50% are community organizers serving their peers in vulnerable communities.

² <https://www.sunrisemovement.org/>

the Clean Power Plan, where they spoke about their own experiences with health impacts relating to coal-fired power plants.

Increasing accessibility to climate change curricula and educational resources

- *Recommendation: create a youth climate change educational hub with curricular materials, presentations, and interactive workshop plans on EPA website*
- *Recommendation: strengthen accessibility of these resources to those not in college or in the college pipeline*
- *Recommendation: validate alternative ways of understanding climate change*
- *Recommendation: Integrate climate change curricula into the broader context of other social justice movements*

Well-established and funded environmental institutions have the capacity to centralize, distribute, and democratize educational resources produced by and collaborated on with youth. For example, in addition to providing interactive space for youth to express themselves, Harambee House INC./Citizens for Environmental Justice (HH/CFEJ) recognizes the need to educate young people in culturally-competent ways on the science of climate change and advocacy strategies.

HH/CFEJ created the Black Youth Leadership Development Institute (BYLDI), whose mission is to empower African American youth to be change agents able to facilitate transformation of themselves, their communities, and the nation by building capacity, skills, culturally-competent models, and developing confident youth leaders. The organization consists of a group of young black teachers, community educators, parents, and professionals committed to redirecting the talent and energy of black youth into positive growth and development. In practice, the program puts youth in charge of work assignments, asks for and uses their input, and lets them lead in a structured space with guidance and feedback. One useful curriculum around climate change, the *Climate Change and Civic Engagement Course*, is required for all BYLDI students, and gives them a stronger foundation in scientific knowledge.

Another effective climate change curriculum is the free, in-person education program offered by ACE, the ACE Assembly, as well as the digital climate education resource and scaled-up version of the assembly, *Our Climate Our Future*. The ACE assembly, like the fellowship, is geared toward and serves many Title I schools. This hour-long series of video clips conveys the science of climate change and related health impacts in an accessible and action-oriented manner.

However, it is also important for EPA to lift up resources and stories about alternative ways of understanding climate change and its health impacts. This means uplifting the traditional and evolving ecological knowledge of young people outside academia and in indigenous and non-Western-based spiritual and religious communities. Indigenous approaches vary in each community. Some tribal-based organizations, such as the Diné Policy Institute, routinely analyze and critique how topics have evolved on the Navajo Nation and identify parts of the culture that have been left out.

Providing youth a seat at the table in decision-making spaces

- *Recommendation: recommend advisory youth work groups in every federal agency*
- *Recommendation: require that at least 20 percent of federal advisory bodies be composed of youth*
- *Recommendation: EPA should review its offices and programs for retention of youth, particularly from communities of color or overburdened communities*

If government and civil society actors are serious about youth engagement, they must also be willing to step aside and hand over power. An example of this concept in practice is the Power Shift Network^{xvi}, which serves as a civil society model. The Network follows the direction of youth already doing the work and uses its network and visibility to promote youth-based activism and solutions. This is represented in their core mission: “Through the collective power of young people, the Power Shift Network is working for a safe climate and just future where communities are thriving and own their power—whether that power is electrical, economic, social, or political.”

The Center for Native American Youth has roundtables^{xvii} and brings youth into its various programs, including the first White House Tribal Youth Gathering. At this event, youth provided recommendations to the U.S. government on program reform and, provided input on the Obama administration’s approaches to funding and programming for indigenous communities.

Too often, young people are relegated to the auxiliary. Therefore, clear benchmarks must be established by which every federal agency and NGO can be held accountable to ensure actual involvement of youth. We recommend that the federal government serve as a model to the nation by mandating advisory youth work groups in every federal agency, requiring that each standing federal advisory body have a youth quota of at least 20 percent, and conducting a full scale review of retention practices for young people, particularly those from vulnerable communities.

Build Capacity by Allocating Resources for Youth Development

- *Main recommendation: EPA and other organizations should support organizations that provide youth with work that matters to them, their future, and their values and increase youth involvement on health vulnerabilities relating to climate change*
- *Main recommendation: governmental and non-governmental bodies should work to minimize accessibility and communication barriers for youth from vulnerable communities by establishing a protocol around the following areas: language barriers, internet and technology access, transportation, and competing priorities. Institutions and organizations can accomplish this by:*

Prioritizing support for organizations that provide youth with work opportunities that pay a living wage and align with their values

- *Recommendation: require climate change grantees to provide paid internships*
- *Recommendation: establish consistent funding for projects and leadership opportunities for young people*

Young people often have to choose to either participate in meaningful but unpaid or underpaid work or holding a more lucrative job with less social impact. Organizations that can ensure youth feel their contributions have impact are far more likely to retain youth leaders. For example, Groundwork Denver works with the principle that youth engagement works best when youth can refer to something positive in their community and say they helped make it possible. Youth appreciate when they can apply their skills to address the needs of their community. If they are not empowered to participate, or if they are participating in positions where they do not feel valued, their contribution may feel invisible to them.

Working for free is said to “build character,” however youth from vulnerable or low-income communities cannot afford to spend time on unpaid work. In tribal communities specifically, youth wishing to pursue environmental endeavors often do not have access to the human and monetary

resources they need to be successful. Although disadvantaged community faces similar issues, tribal communities are particularly affected due to the semi-autonomous states of their tribal nations. Paid work holds young people accountable and enables them to prioritize it over other responsibilities and opportunities. Work Group Member Kayla DeVault explains that, in her experience, incentives show respect and value for the time and knowledge of young indigenous people, specifically for those who may have far fewer opportunities than their non-indigenous counterparts.

The EPA could provide grants for paid internships and require that grantee organizations pay youth a living wage. Young people must be trained and compensated as leaders, and institutions like the federal government, local governments, and universities can support them by providing opportunities to develop these leadership skills.

Supporting organizations whose goal is to build long-term and authentic relationships and bridge cultural gaps

- *Recommendation: recognize that trust-building takes time; design grant metrics that take this into account*
- *Recommendation: involve youth in the planning and program design process of projects*
- *Recommendation: provide youth with accountable mentors*

For any project or initiative to have long-term impact, all members of a community must be involved. Work of import for youth involves fostering relationships with key stakeholders including business owners, local government officials, utility companies, developers, students, local organizations, and transportation authorities.

The Town of Secaucus, for example, has built relationships with diverse, local stakeholders (including youth) to fund, support, and implement projects. Those partnerships made it possible to implement sustainability initiatives that have improved the quality of life for all residents and saved money for the town through energy savings and increased recycling and waste reduction. Across New Jersey, youth are involved in green stormwater infrastructure projects as well as sustainability initiatives. Youth have also taken on the role of grassroots activists and organizers because, at times, city officials do not prioritize environmental projects that matter to youth.

Similarly to the work being done in Secaucus, New Jersey, the community of East Tampa has demonstrated the impact of working collaboratively with local government, universities, K-12 schools, and nonprofits to aid in the overall efforts of economic development and environmental justice in the community. These partnerships have prioritized not only addressing these challenges, but training community residents, particularly youth, in a more technical understanding of roadway and water infrastructure in the community.

At Groundwork Denver, youth often say they enjoy building relationships internally with one another as well as with outside stakeholders. The organization therefore works hard to foster opportunities for youth to develop friendships, which motivates them to continue their participation. Groundwork Denver has also discovered challenges when bringing together low-income, urban youth of color and established institutions (such as the US Department of the Interior or US Forest Service) due to cultural gaps. Both sides have historically been separate from and wary of each other. It has been a challenge to break down preconceptions and create an environment of openness, trust, and curiosity.

Distrust stemming from cultural gaps is also common when working with tribal nations. In the thousands

of Native American communities and cultures across the nation, indigenous people, as with many people of color, face numerous debilitating stereotypes which require a meaningful effort to engage with youth on an individualized basis.

Expanding youth capacity for technical and broader civic engagement skills around health vulnerabilities

- *Recommendation: provide summer internship funding for youth to practice technical skills, such as air and water monitoring*
- *Recommendation: when designing programs, connect health vulnerabilities to intersecting economic, political, and social disparities*
- *Recommendation: help build partnerships between communities and universities that center on youth*

Another challenge in engaging youth on “work that matters to them” is that health vulnerabilities related to climate change may be harder for youth to engage with because additional technical training is necessary. Dealing with health issues goes deeper than lifestyle changes or greening urban spaces; it is a systemic and capacity-building issue. At the moment, youth seem to be more heavily involved in renewable energy, energy efficiency, and green economy initiatives than addressing health vulnerabilities.

Still, youth across the country are getting involved in addressing health impacts of climate change. After extreme weather events, as observed by ACE, youth became more invested in dealing with health disparities because they intersect with a loss of educational opportunities and economic devastation. These crisis moments are important motivating forces for youth to learn about these intersections, and increase their civic engagement skills. While these tragic events are overwhelming and complex, ACE seizes the opportunity to get youth involved in climate change work when they see their community directly impacted by it.

Youth are also encouraged to participate in these programs in order to build awareness about climate change and its interconnected justice issues through their own spheres of influence, including their peers, schools, families, and local communities. This allows youth to operate at the center of a network they are familiar with and gives them a clear direction on how to organize, educate, and explore climate justice.

The Deep South Center for Environmental Justice (DSCEJ) offers an opportunity for the community, academics, and decision makers to share knowledge from their diverse backgrounds to formulate sustainable and equitable solutions to issues that that community members may face. DSCEJ specifically advances environmental justice education through their “Communiversality.” The “Communiversality”^{xviii} partnership model connects community members impacted by health issues, including youth, with centers, universities, and researchers in nonthreatening forums. The “Communiversality” model empowers youth and other community members to create effective policy and research combined with academic theory and concepts. It is a replicable, collaborative tool for young people to engage with institutions outside of their communities and a training ground to equip the public with the knowledge they need to protect their homes.

Allocating resources to address language and communication barriers

- *Recommendation: address language barriers in hiring, outreach, and communication practices*

Language barriers exist both between communities and between generations, as there may be a loss of a culture's language over time or simply a lack of effective communication between generations. These limitations can affect efforts to engage youth and reduce opportunities for youth to participate in the environmental field. Conversely, young people can serve as a connection between those in their community who may have limited proficiency and organizations working on climate action by supporting an organization's efforts to work in the native language of the communities they work in. Agencies and organizations must invest in translation and in young people who can communicate in a variety of ways. Urban Indian centers around the country, for example, often provide indigenous people who live in cities with a central location for cultural resources and other tools. These centers are not isolated, and the language help provided is usually in their indigenous language rather than English.

Allocating resources to address accessibility and participation barriers such as internet connectivity, transportation, and competing conflicts

- *Recommendation: solicit and address youth's needs regarding internet connectivity and access to technology*
- *Recommendation: provide travel stipends and host meetings in accessible locations*

Although social media and online communication are appropriate mediums for youth and give them access to global conversations about climate justice, certain communities with limited resources may not have access to the internet or specific technologies. It is important to address the disparities in internet access by listening to youth's needs and ideas on this topic, and then following up with the appropriate financial and technical resources.

Not all youth are able to access meeting spaces, due to both time and distance limitations; they may not be able to take time off from their school or work schedule and they may not have the money to travel. While permanent positions can often pay for their representatives to attend, young people in unpaid or underpaid positions do not have this benefit, and in more grassroots, youth-led organizations, they may not even have an established organization to rely on for financial support. To ameliorate this, ACE provides travel stipends to weekly fellowship meetings to all students, and a small general stipend for participating in the fellowship. The organization hosts weekly meetings in locations that are accessible by public transportation for students and arranges transportation to outside events.

A scarcity of economic resources in vulnerable communities can lead to participation issues among youth. It is important to recognize that youth often need to support themselves through other work after school or have family responsibilities caring for siblings. Organizations can poll participants about work conflicts and provide childcare as necessary. The Michigan Environmental Justice Coalition Summits and NEJAC meetings, for example, offer child supervision which helps to increase participation for community members with competing responsibilities.

Develop and Implement Principles for Engaging Youth on Climate Justice

Main recommendation: EPA and other institutions should establish a code of conduct for working with youth to address the gap of trust and to build just and accountable relationships. This code should be based upon:

Applying the Jemez Principles of Democratic Organizing^{xix} and Principles of Environmental Justice^{xx} to engagement with young people

These guidelines already provide strong recommendations for how to engage with vulnerable communities in general; all of these principles apply to working with youth as well as a constituency. The Jemez Principles of Democratic Organizing, established in 1996 in Jemez, New Mexico, are centered on building “common understandings among participants from different cultures, politics and organizations.”³ The Principles of Environmental Justice, created at the First National People of Color Environmental Leadership Summit in 1991, serves as a foundational document in the practice of environmental justice work across the nation. These principles incorporate the destruction of the natural world with the destruction of the culture and life of historically oppressed groups.⁴ In addition, creative praxes, such as Popular Education^{xxi} or Theatre of the Oppressed^{xxii}, are innovative tools through which young people can gain ownership over their role in the movement and in relation to institutions.

Uplifting intergenerational appreciation

- *Recommendation: ensure that respect and recognition go both ways*
- *Recommendation: combat inequitable power dynamics caused by ageism and credentialism*

Too often, young people are not taken seriously; stereotypes of being naive, idealistic, and inexperienced undermine their authority in the face of more established figures, ideas, and protocols. While youth may have fewer years of education and technical training, they can contribute a great deal to decision-making spaces. Reciprocal mentorship is key to developing powerful relationships across generations and for young people to own a greater stake of the work in their communities.

Allowing change to happen “at the speed of trust”

- *Recommendation: do not compete with successful youth work*
- *Recommendation: work with organizations and community leaders who have already gained youth’s trust*

For organizations just now entering the sphere of environmental and climate justice, it is important to build respectful, trustworthy partnerships that honor—and do not replicate or compete with—successful work. ACE and Power Shift are national organizations with strong partnerships, both at the national and local level. At the same time, both recognize that they are relatively new players on the

³ <http://tejasbarrios.org/jemez/>

⁴ <http://tejasbarrios.org/ejprinciples/>

scene and that grassroots organizations have been fighting for environmental and climate justice for decades. ACE occupies an interesting space between 'big greens' and local grassroots/environmental justice organizations; they support young people to take action locally and also connect them to a national network of young people and opportunities for their voices to have a broader reach beyond local communities. In a similar vein, Power Shift Network focuses on investing in, validating, and following the lead of young people on the frontlines of the climate crisis and systems change, and connecting them with well-established spaces for funding and distribution.

Engaging in Seventh Generation Thinking

Climate change is a problem that disadvantages those further down the timeline, including many generations who do not yet have a voice. Many indigenous communities have already developed a framework for holding themselves accountable to ensuring an equitable, just, and sustainable world through Seventh Generation Thinking.^{xxiii} This philosophy articulates the “responsibility, not just in terms of balance for the immediate life [but also] the need to maintain this balance for the seventh generation to come.” Young people today are applying this concept by suing the federal government over its failure to defend the health of future generations.^{xxiv} If a genuine effort to combat the climate crisis is to be successful, then actors must fully internalize how decisions made today impact the state of tomorrow’s young people.

Conclusion

Climate justice is a concern that will continue to adversely impact the nation's most vulnerable populations, those in coastal communities, black and brown communities, and those with historically limited power to enforce regulations. The United States is at a critical point where many of the nation's cities have been impacted by extreme weather events, more than any other time in its history, and these same locations are only going to become increasingly vulnerable to climate impacts throughout the remainder of the century. The longevity of these vulnerabilities demonstrates the importance of engaging youth, the individuals who will be the next leaders in government, academia, industry, and in nonprofits. Youth need the capacity and knowledge to more critically assess and address climate justice challenges in the future, and engaging them effectively will aid in the development of future thought leaders in this space to help with growing infrastructure, research, and policy issues.

The recommendations listed in this report serve as a preliminary list, providing a basis upon which current and future organizations can develop their own models for successful engagement of youth in climate justice-related work. Not only do the recommendations serve as a guideline, but the Work Group process itself provides an additional foundation upon which other agencies and organizations can effectively include youth in the decision-making processes to continue working to address climate and environmental justice. As mentioned in the recommendations section, youth should comprise at least 20% of the staff, or representative board of related organizations, and should be invited to serve as part of advisory groups for agencies across the federal government. This not only provides an opportunity to gain insight from this particular demographic, but also helps foster intergenerational dialogue, a critical component to moving toward increased equity and justice.

It is important to acknowledge that although the Youth Group provides a variety of experiences and perspectives to this conversation, we recognize our own privilege and limited scope as college-educated youth who have been active in this space for several years. With our limited scope, there are likely populations and experiences not currently reflected in this report, and therefore while this report can serve as a foundation to further the dialogue of youth engagement, it is in no way meant to provide a complete narrative of the various solutions that exist. It is also important to acknowledge that, although youth provide a valuable perspective, youth are not monolithic in thoughts, experiences, and beliefs. To achieve climate justice, engagement across various demographics is necessary for a more holistic perspective of climate impacts. Incorporating viewpoints from youth is a necessary start, but acknowledging the diversity within these perspectives provides a better understanding of the variety of challenges experienced throughout the country. As mentioned in this report, the ability to bridge gaps across cultures and various sectors, each with a valuable stake in the fight against climate injustice, proves to be a successful model as demonstrated in the case studies. The power of collective action only occurs through thoughtful engagement, patience, understanding, and listening to the needs and wants of communities. This ultimately is the optimal solution to achieve climate justice and equity.

Appendix

Principles of Youth Engagement on Climate Change

Building on the Legacy of the Jemez Principles for Democratic Organizing and Principles for Environmental Justice



1. Let Youth Speak For Themselves

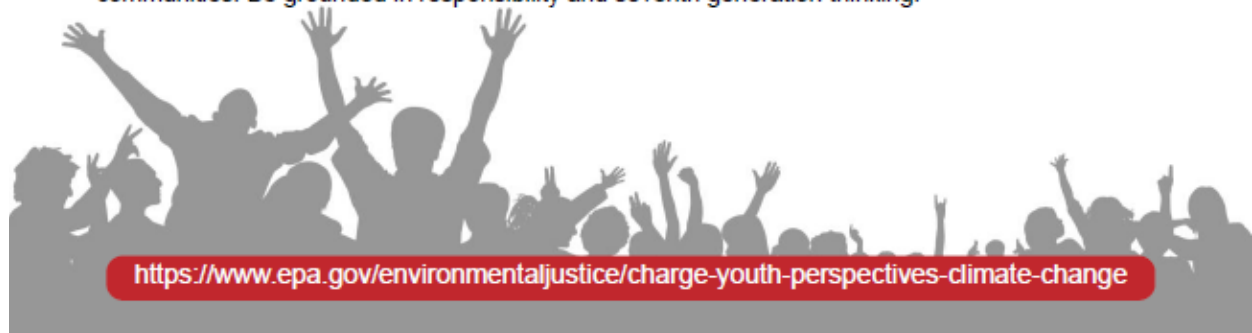
Prioritize working with partners with inclusive representation and frontline community-based youth hiring practices. Require climate change and public health grantees, staff, boards, federal advisory bodies, and other decision-making tables consist of at least 20% from impacted communities. Create youth advisory work groups for every government agency. Affirm work that matters to young people and aligns with their values.

2. Invest in Rising Leadership

Pay young people at a living wage for research, organizing, and education work, including internships and apprenticeships. Increase accessibility to climate change curricula especially outside higher education institutions, allocate resources for transportation, internet connectivity, language, and communication barriers. Provide trainings for grant-writing and civic engagement skill-building. Fund and facilitate professional development and scholarship to develop technical competency to be fully knowledgeable in the various aspects of climate change and climate justice.

3. Uplift Intergenerational Collaboration

Allow change to happen at the speed of trust and apply respect and recognition in both directions. This also requires a willingness by organizations to learn from youth, especially when it comes to storytelling, movement-building, and technical training. An exchange of knowledge and expertise can combat inequitable power dynamics of ageism and credentialism that often lead to competing, co-opting, or providing inconsistent funding to successful youth work. Work with partners that have already gained the trust of local youth leaders if there aren't already established youth-led spaces. Review internal practices and retention of youth, particularly those of intersectional identities, including but not limited to women and LGBT people of color and those from overburdened communities. Be grounded in responsibility and seventh generation thinking.



<https://www.epa.gov/environmentaljustice/charge-youth-perspectives-climate-change>

List of Recommendations

Mentor and Train Youth Leaders and Engage Youth in Decision-Making

- *Main recommendation: EPA should establish a floor of participation for diverse young people with the goal of including youth at more levels of decision-making by:*

Supporting organizations with inclusive representation and community-based youth hiring practices

- *Recommendation: require that climate change grantees, staff, and board consist of at least 20% youth from impacted communities*

Providing trainings and grants for organizations to employ storytelling and other youth engagement strategies

- *Recommendation: create “Storytelling 101” webinars in partnership with youth organizers*
- *Recommendation: offer trainings on gathering stories and experiences from community members and fellow youth (i.e. how to conduct interviews and document oral histories)*

Increasing accessibility to climate change curricula and educational resources

- *Recommendation: create a youth climate change educational hub with curricular materials, presentations, and interactive workshop plans on EPA website*
- *Recommendation: strengthen accessibility of these resources to those not in college or in the college pipeline*
- *Recommendation: validate alternative ways of understanding climate change*
- *Recommendation: Integrate climate change curricula into the broader context of other social justice movements*

Providing youth a seat at the table in decision-making spaces

- *Recommendation: recommend advisory youth work groups in every federal agency*
- *Recommendation: require that at least 20 percent of federal advisory bodies be composed of youth*
- *Recommendation: EPA should review its offices and programs for retention of youth, particularly from communities of color or overburdened communities*

Build Capacity by Allocating Resources for Youth Development

- *Main recommendation: EPA and other organizations should support organizations that provide youth with work that matters to them, their future, and their values and increase youth involvement on health vulnerabilities relating to climate change*
- *Main recommendation: governmental and non-governmental bodies should work to minimize accessibility and communication barriers for youth from vulnerable communities by establishing a protocol around the following areas: language barriers, internet and technology access, transportation, and competing priorities. Institutions and organizations can accomplish this by:*

Prioritizing support for organizations that provide youth with work opportunities that pay a living wage and align with their values

- *Recommendation: require climate change grantees to provide paid internships*
- *Recommendation: establish consistent funding for projects and leadership opportunities for*

young people

Supporting organizations whose goal is to build long-term and authentic relationships and bridge cultural gaps

- *Recommendation: recognize that trust-building takes time; design grant metrics that take this into account*
- *Recommendation: involve youth in the planning and program design process of projects*
- *Recommendation: provide youth with accountable mentors*

Expanding youth capacity for technical and broader civic engagement skills around health vulnerabilities

- *Recommendation: provide summer internship funding for youth to practice technical skills, such as air and water monitoring*
- *Recommendation: when designing programs, connect health vulnerabilities to intersecting economic, political, and social disparities*
- *Recommendation: help build partnerships between communities and universities that center on youth*

Allocating resources to address language and communication barriers

- *Recommendation: address language barriers in hiring, outreach, and communication practices*

Allocating resources to address accessibility and participation barriers such as internet connectivity, transportation, and competing conflicts

- *Recommendation: solicit and address youth's needs regarding internet connectivity and access to technology*
- *Recommendation: provide travel stipends and host meetings in accessible locations*

Develop and Implement Principles for Engaging Youth on Climate Justice

- *Main recommendation: EPA and other institutions should establish a code of conduct for working with youth to address the gap of trust and to build just and accountable relationships. This code should be based upon:*

Applying the Jemez Principles of Democratic Organizing^{xxv} and Principles of Environmental Justice^{xxvi} to engagement with young people

Uplifting intergenerational appreciation

- *Recommendation: ensure that respect and recognition go both ways*
- *Recommendation: combat inequitable power dynamics caused by ageism and credentialism*

Allowing change to happen “at the speed of trust”

- *Recommendation: do not compete with successful youth work*
- *Recommendation: work with organizations and community leaders who have already gained youth's trust*

Engaging in Seventh Generation Thinking

Internal Survey Results

Below are the contents and anonymous results of the internal survey. This survey was designed to aggregate the knowledge and experience within the Work Group and to identify specific recommendations or pathways to meeting the charge. The responses have not been edited.

1. Name

- Eriqah Vincent
- Yudith Nieto
- Will DiGravio (*left workgroup in 2017*)
- Stefan Petrovic
- Kathy Tran
- Nikita Robinson
- Zoe Ackerman
- Maya Carrasquillo
- Amber Vignieri
- Samantha Shattuck
- Amanda Nesheiwat
- Devin Crowther
- Melake Anthony Torres
- Oforiwaa Pee Agyei-Boakye

2. In what city and state do you work?

- Atlanta, GA
- Houston Texas
- Middlebury, Vermont
- I am originally from Lawrence, Kansas and am attending college in Cambridge, Massachusetts
- Berkeley, CA
- Unalaska, Alaska
- Washington, DC and all over North Carolina
- Tampa, FL
- Chicago, IL
- Cincinnati, Ohio
- Secaucus, New Jersey
- Tallahassee, Florida
- Denver, CO
- Washington, DC
- Philadelphia, PA

3. *Who is your current employer or academic institution?*

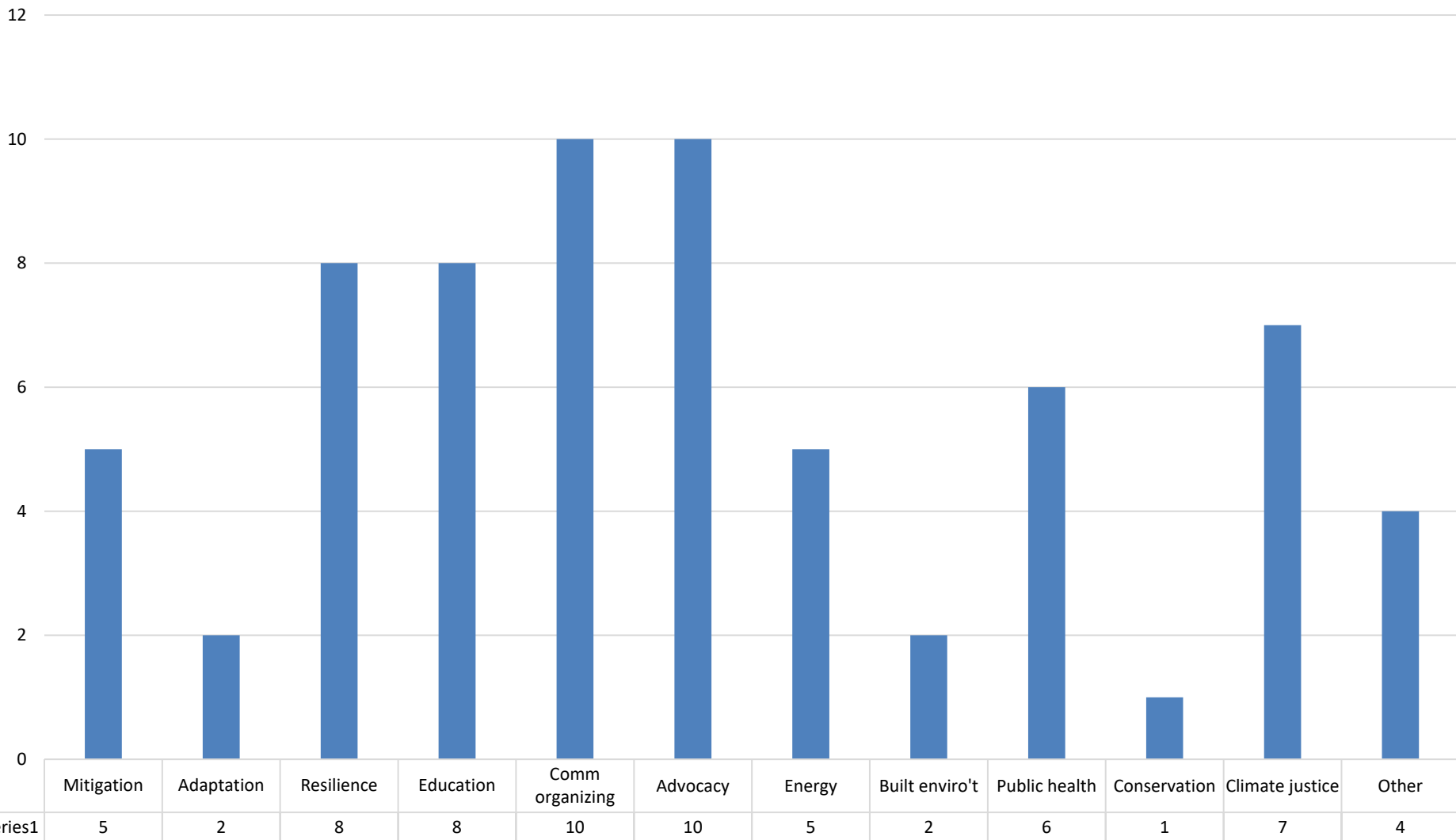
- National Wildlife Federation
- Texas environmental justice advocacy services
- Middlebury College
- Harvard University (Undergraduate Student)
- UC Berkeley
- Qawalangin Tribe of Unalaska and University of Alaska MatSu
- Rachel Carson Council
- University of South Florida
- Elevate Energy
- Pegasus Technical Services, Contractor for EPA
- Town of Secaucus NJ
- Florida Agricultural & Mechanical University
- Groundwork Denver
- Sierra Club, SustainUS
- University of Pennsylvania

4. *In your current work, what general areas of climate change are you involved in? [select all that apply]*

- Mitigation
- Adaptation
- Resilience
- Education
- Community organizing
- Advocacy
- Energy
- Built environment
- Public health
- Conservation
- Climate justice
- Other (please specify)

Leadership Development	Environmental justice
Sustainable Development	Trade and climate

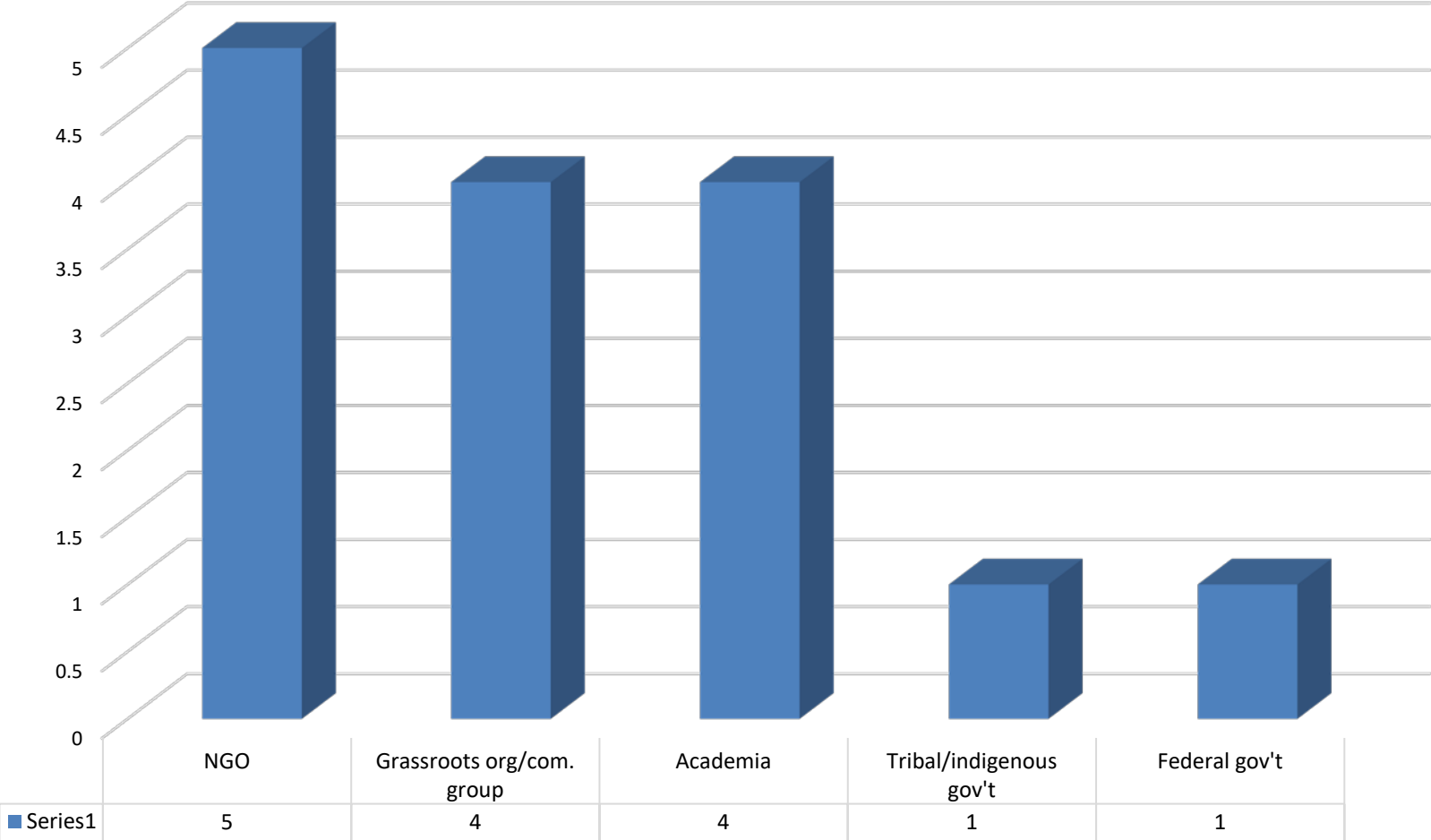
In your current work, what general areas of climate change are you involved in? Select all that apply.



5. What sector do you **primarily** represent in your climate work? [select only **one** that most applies]

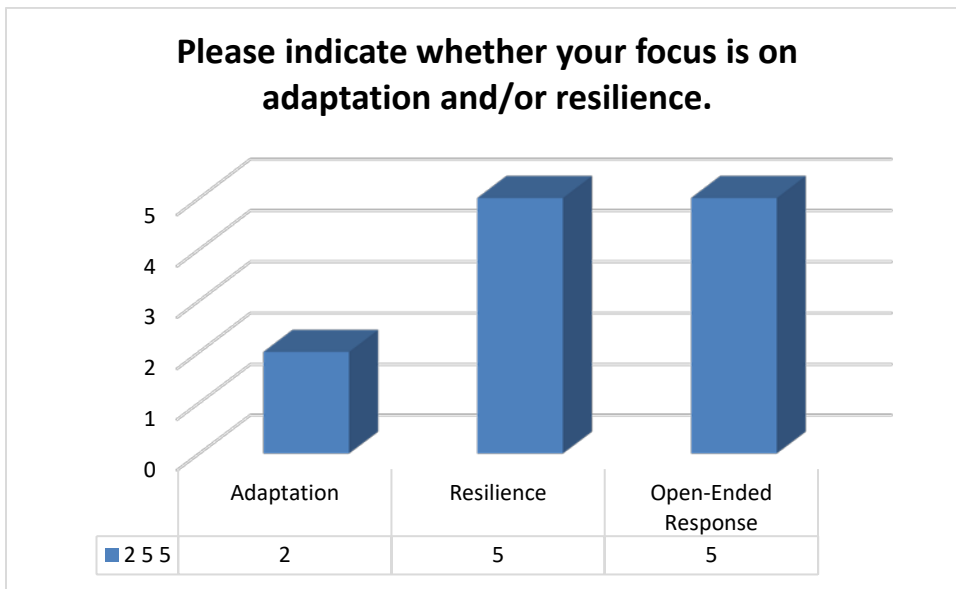
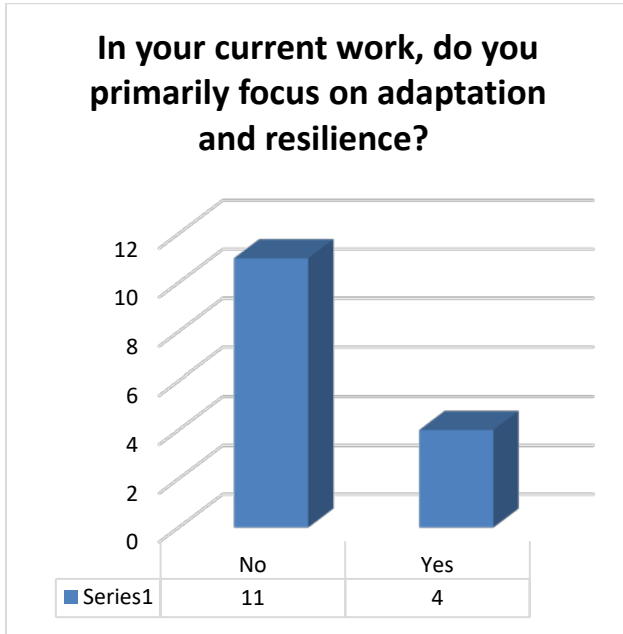
- Tribal/indigenous government
- City government
- County government
- State government
- Federal government
- Private
- Academia
- Rural communities
- Grassroots organization/community group
- Non-governmental organization (NGO)
- Other (please specify)

What sector do you primarily represent in your climate work?



6. In your current work, do you **primarily** focus on adaptation and resilience?

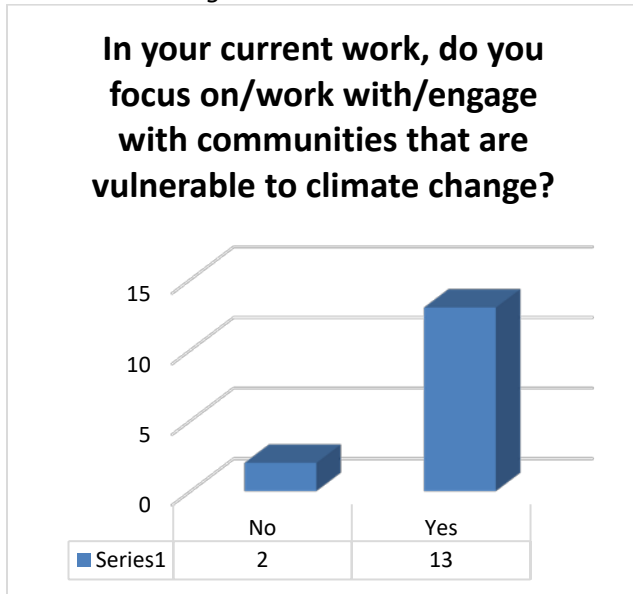
- Yes
- No



7. Please describe your current climate work.

- NWF- Leadership development for youth looking to make climate work a career, DEL (Diverse Environmental Leaders) Speaker-Speaking and providing guidance to government organizations and NGO's on reaching youth and diverse populations in climate work
- I work with local schools, communities and universities to address the climate impacts in low income refining communities of color.
- Creating and building resources to connect and educate climate leaders.
- Currently, I am drafting articles for the Harvard Political Review on the relationship between climate change and national security. I have just started college so much of my grassroots activism and environmental justice work with tribal groups is on hold.
- Research studies to understand the association between living within proximity to oil/gas fields and birth outcomes, and aspects of environmental justice relative of biomass power plants
- The Rachel Carson Council's goal, and my role as Associate Program Director, is to build a network carrying forward Rachel Carson's legacy and the environmental justice movement's history of calling attention to the intersection between climate change, environmental pollution, health, human rights, and industrial animal agriculture. On a broad level, the scope of our work aims to influence the direction of research and teaching to work through an environmental justice lens, build stronger relationships between higher education and communities through popular education movement building techniques, and broaden the base of advocates ready to take action to transform our food system. Through network-building, creative programming, and course planning assistance, we specifically aim to expose higher education spheres in North Carolina to the perspectives of impacted communities, workers, contract growers, and organizations advocating for positive social change.
- Promoting and implementing smarter energy use for all through programs that bring energy efficiency initiatives to those who need them most
- I am working on Health Impact Assessment practice and policy. The current HIA we're working on includes resiliency in its objectives, Suffolk County responding to Hurricane Sandy.
- I am currently involved in, and presenting on topics related to water quality in and around the North Florida area.
- I currently work with young people to create new stories of climate justice, advocate for policies aimed at zero fossil fuels by 2050, and fight against corporate trade agreements like the TPP. We organize, create, and work inside and outside halls of power to change narratives and challenge power dynamics.
- Transportation policies in the built environment to remedy environmental issues, sustainable urban planning, policies and design for climate change. How urban planning policies in the built environment can be used to remedy climate change issues while promoting sustainable environmental development.

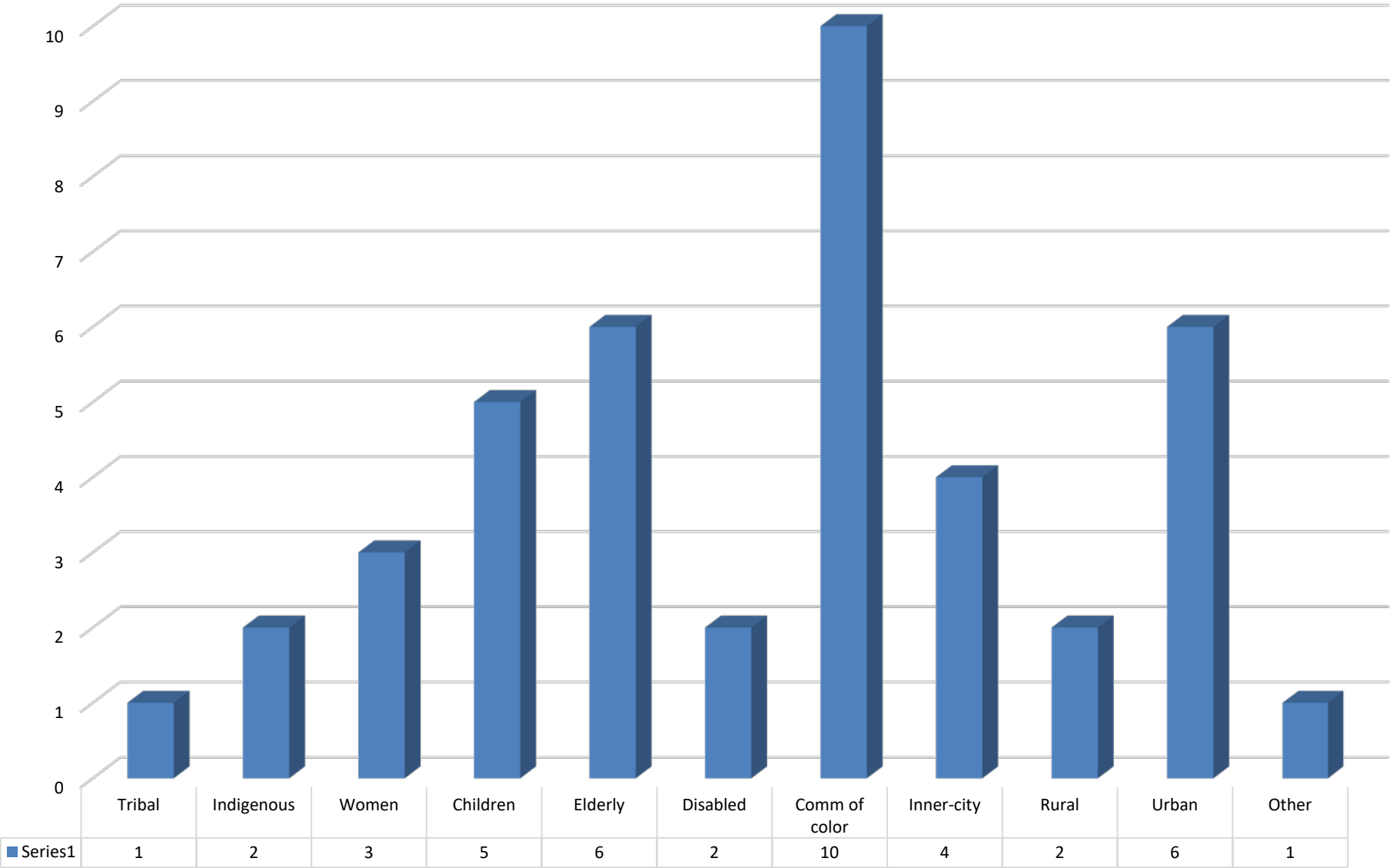
8. In your current work, do you focus on/work with/engage with communities that are vulnerable to climate change?



9. Who are these vulnerable communities? *[select all that apply]*

- Tribal
- Indigenous
- Women
- Children
- Elderly
- Disabled
- Communities of color
- Inner-city
- Rural
- Urban
- Other (please specify)

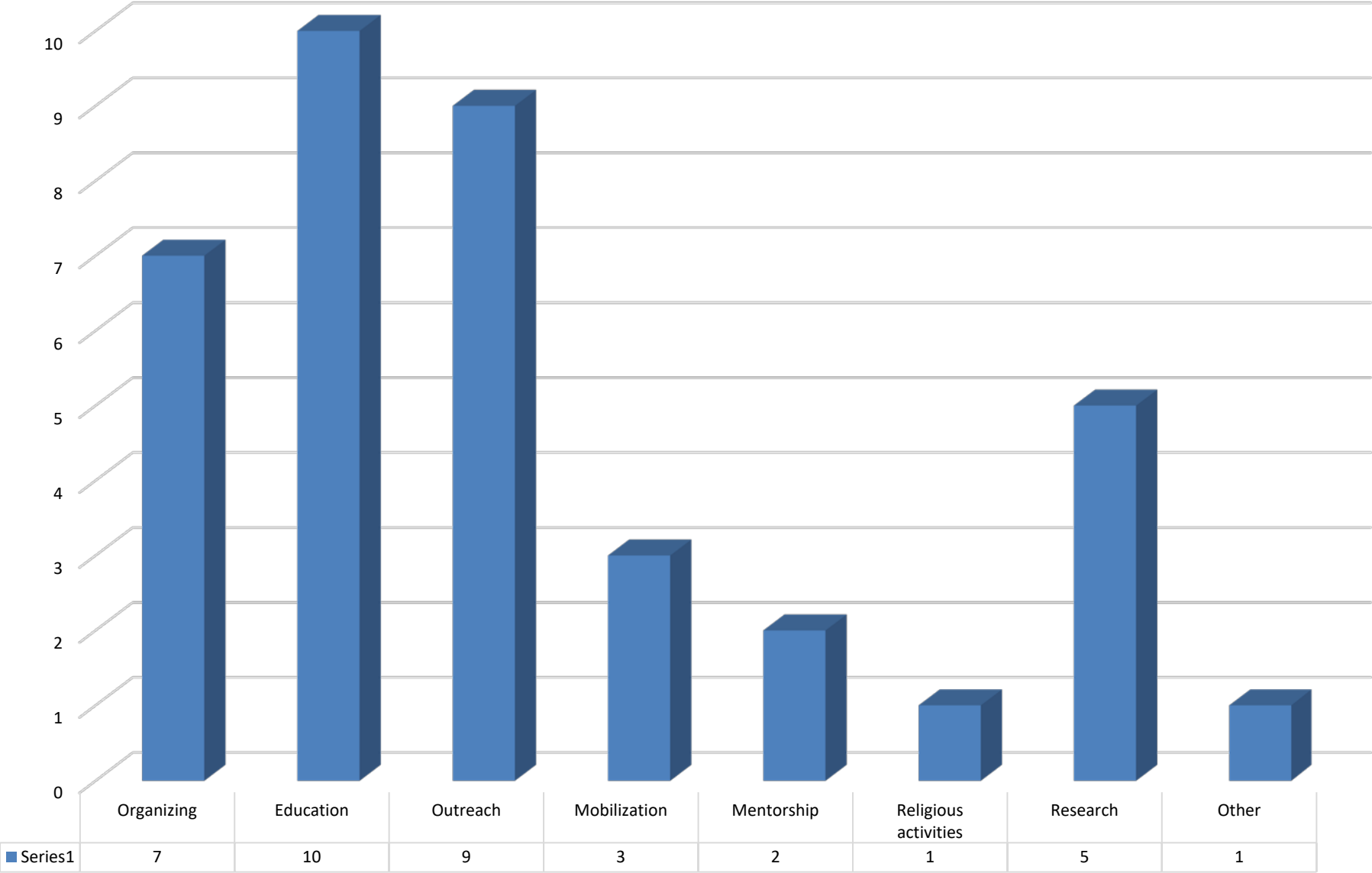
Who are these vulnerable communities? Select all that apply.



10. How do you engage these vulnerable communities? **[select all that apply]**

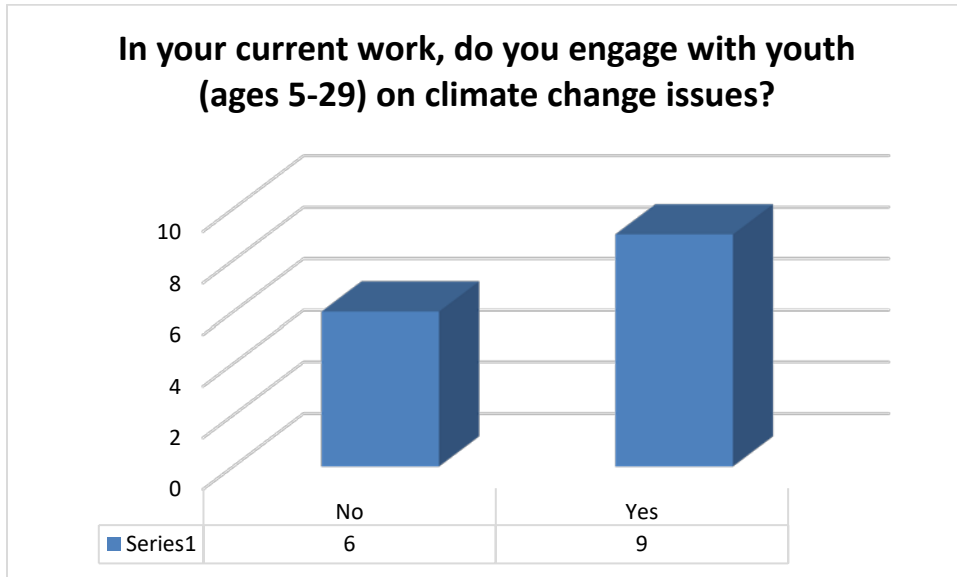
- Organizing
- Education
- Outreach
- Mobilization
- Mentorship
- Religious activities
- Research
- Other (please specify)

How do you engage these vulnerable communities? Select all that apply.



11. In your current work, do you engage with youth (ages 5-29) on climate change issues?

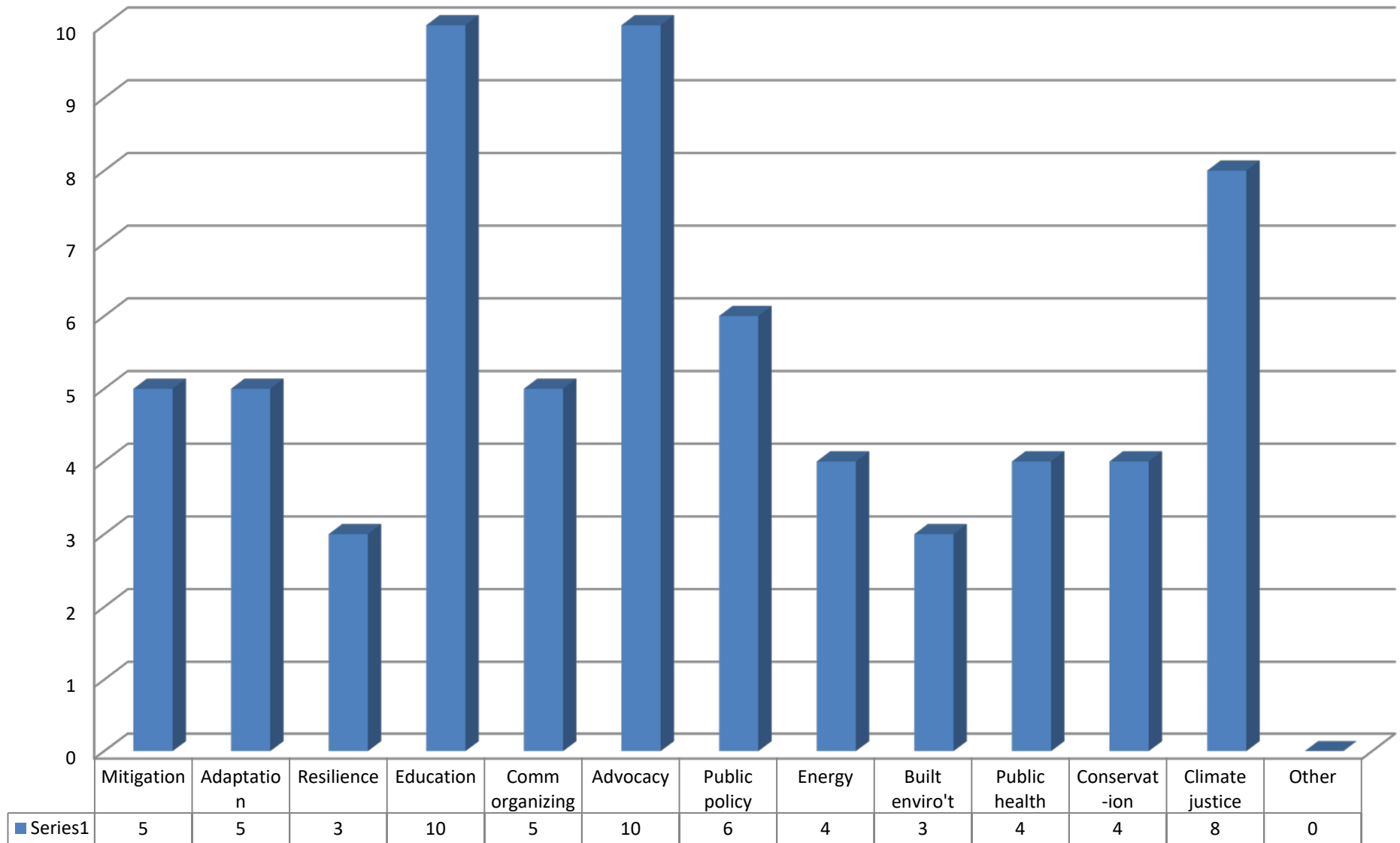
- Yes
- No



12. In your previous work, professional and/or academic, what general areas of climate change were you involved in? **[select all that apply]**

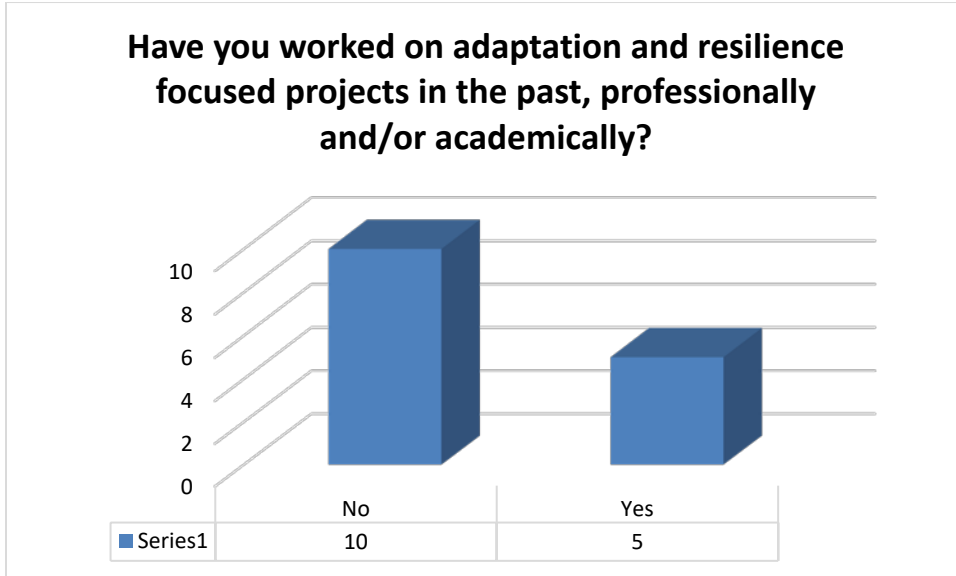
- Mitigation
- Adaptation
- Resilience
- Education
- Community organizing
- Advocacy
- Public policy
- Energy
- Built environment
- Public health
- Conservation
- Climate justice
- Other (please specify)

In your previous work, professional and/or academic, what general areas of climate change were you involved in? Select all that apply.



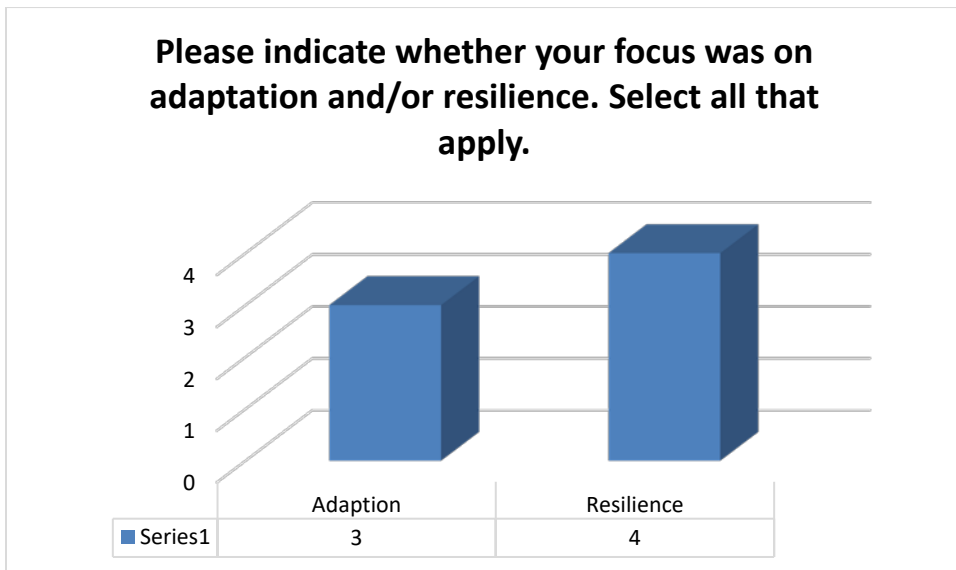
13. Have you worked on adaptation and resilience focused projects in the past, professionally and/or academically?

- Yes
- No



14. Please indicate whether your focus was on adaptation and/or resilience. **[select all that apply]**

- Adaption
- Resilience

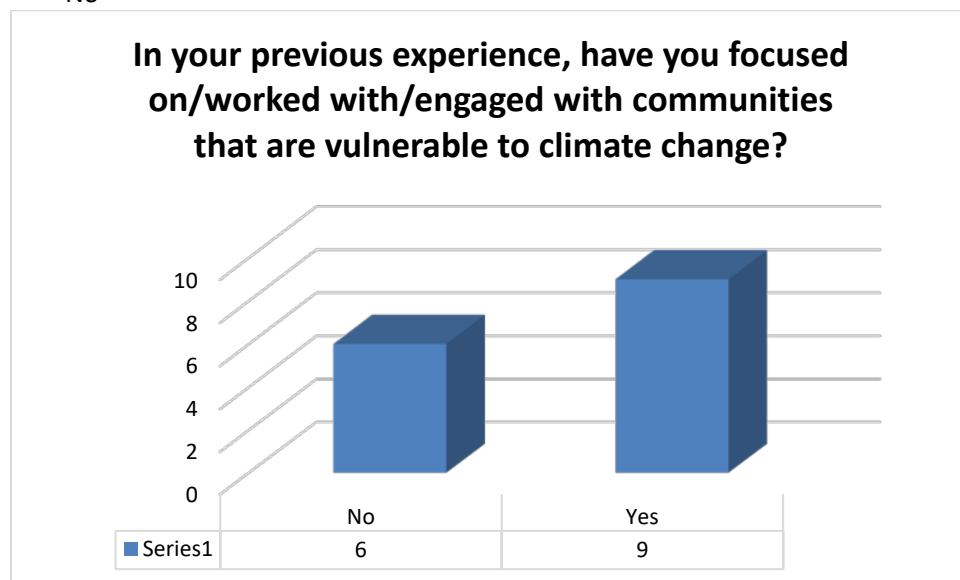


15. Please describe your **previous** adaptation and/or resilience work.

- Worked with a local High school to include EJ principles and perspectives in adaptation and resilience curriculum
- Working with tribal entities and grassroots environmental justice networks to make Traditional Ecological Knowledge (TEK) part of the global community's response to climate change.
- To begin filling a knowledge gap on climate change vulnerability and adaptation within developing countries, I conducted a master's thesis project that described how urban slum dwellers in Ahmedabad, India are vulnerable to heat illness. I discovered that the slum dwellers mainly accessed primary healthcare at local urban health centers (UHC) and the vulnerable sub-population included the elderly, outdoor workers, and persons with preexisting chronic conditions. I then developed target recommendations for the local state public health ministry.
- See previous response.
- Working along communities in Long Island to rebuild after Hurricane Katrina and working to support communities and young people across the country resisting climate impacts.

16. In your previous experience, have you focused on/worked with/engaged with communities that are vulnerable to climate change?

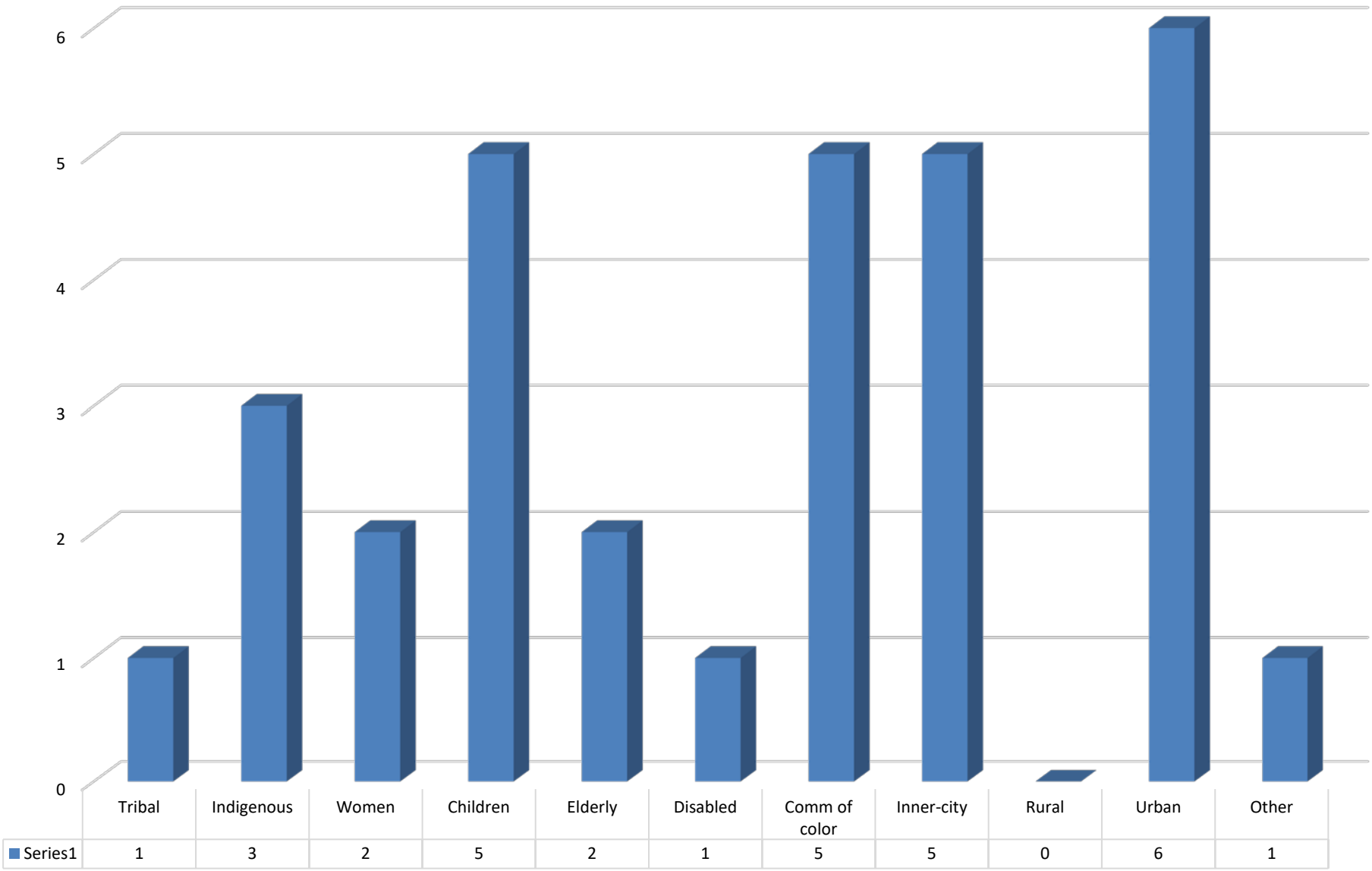
- Yes
- No



17. Who were these vulnerable communities? *[select all that apply]*

- Tribal
- Indigenous
- Women
- Children
- Elderly
- Disabled
- Communities of color
- Inner-city
- Rural
- Urban
- Other (please specify)

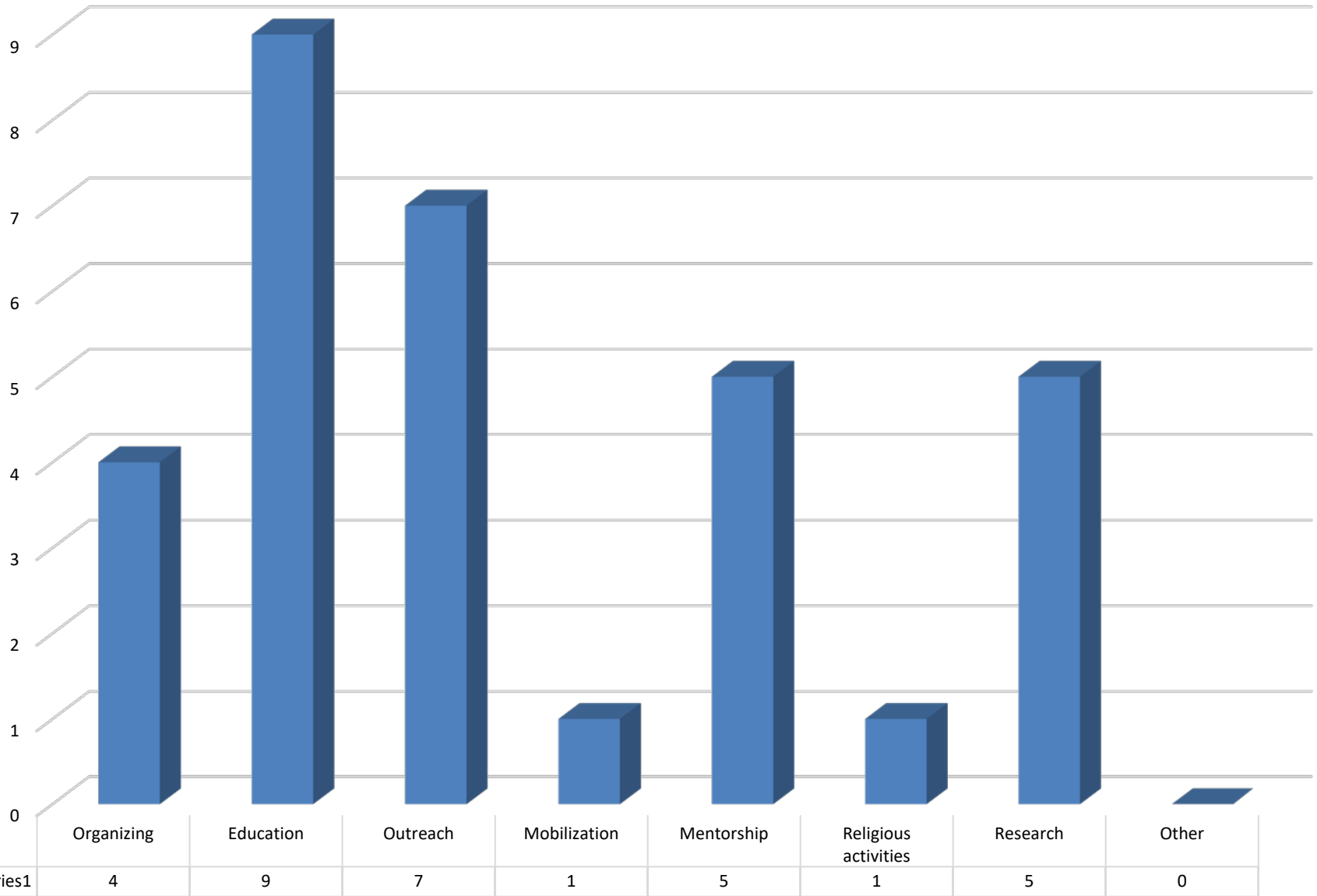
Who were these vulnerable communities? Select all that apply.



18. How did you engage these vulnerable communities? **[select all that apply]**

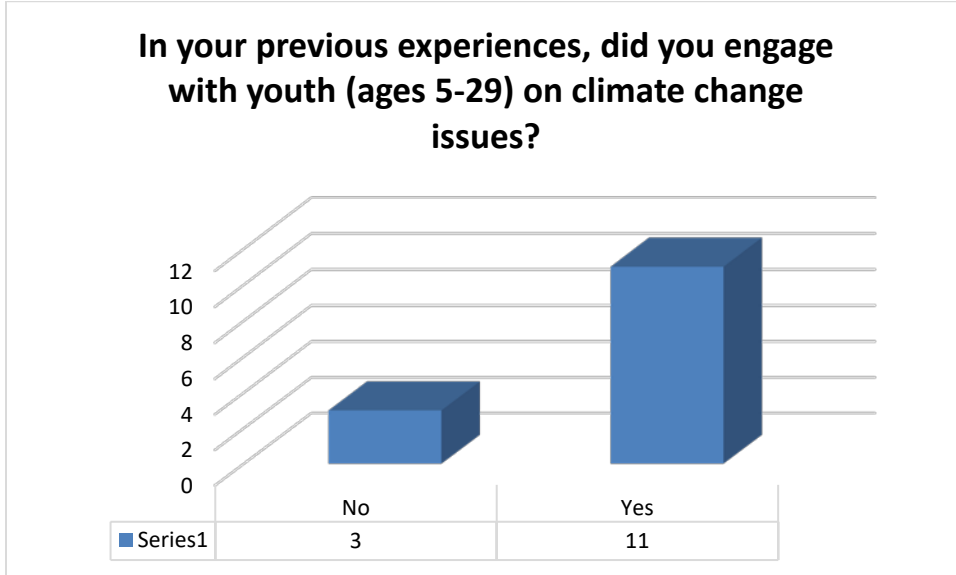
- Organizing
- Education
- Outreach
- Mobilization
- Mentorship
- Religious activities
- Research
- Other (please specify)

How did you engage these vulnerable communities? Select all that apply.



19. In your previous experiences, did you engage with youth (ages 5-29) on climate change issues?

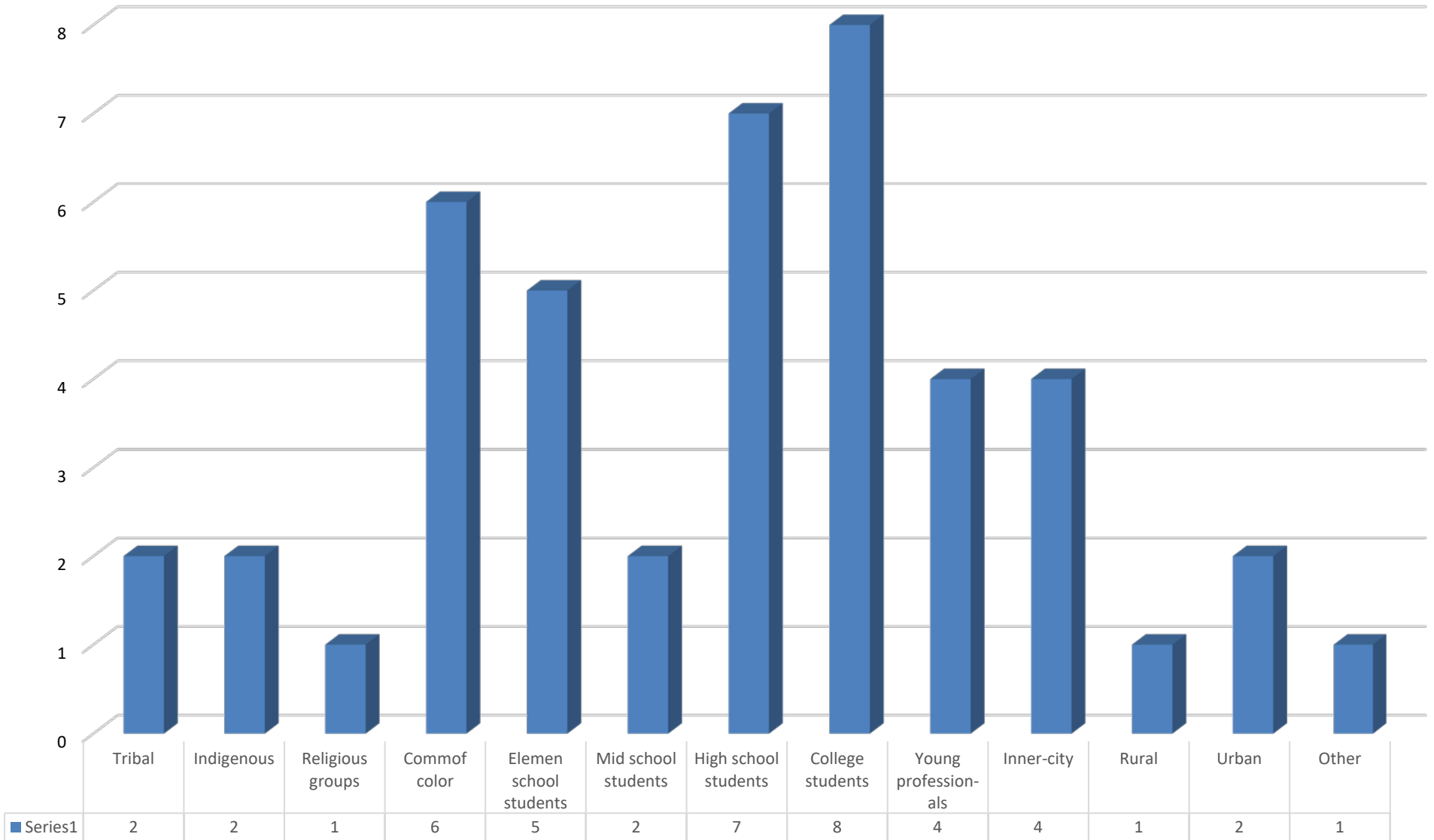
- Yes
- No



20. Who were these youth communities? *[select all that apply]*

- Tribal
- Indigenous
- Religious groups
- Communities of color
- Elementary school students
- Middle school students
- High school students
- College students
- Young professionals
- Inner-city
- Rural
- Urban
- Other (please specify)

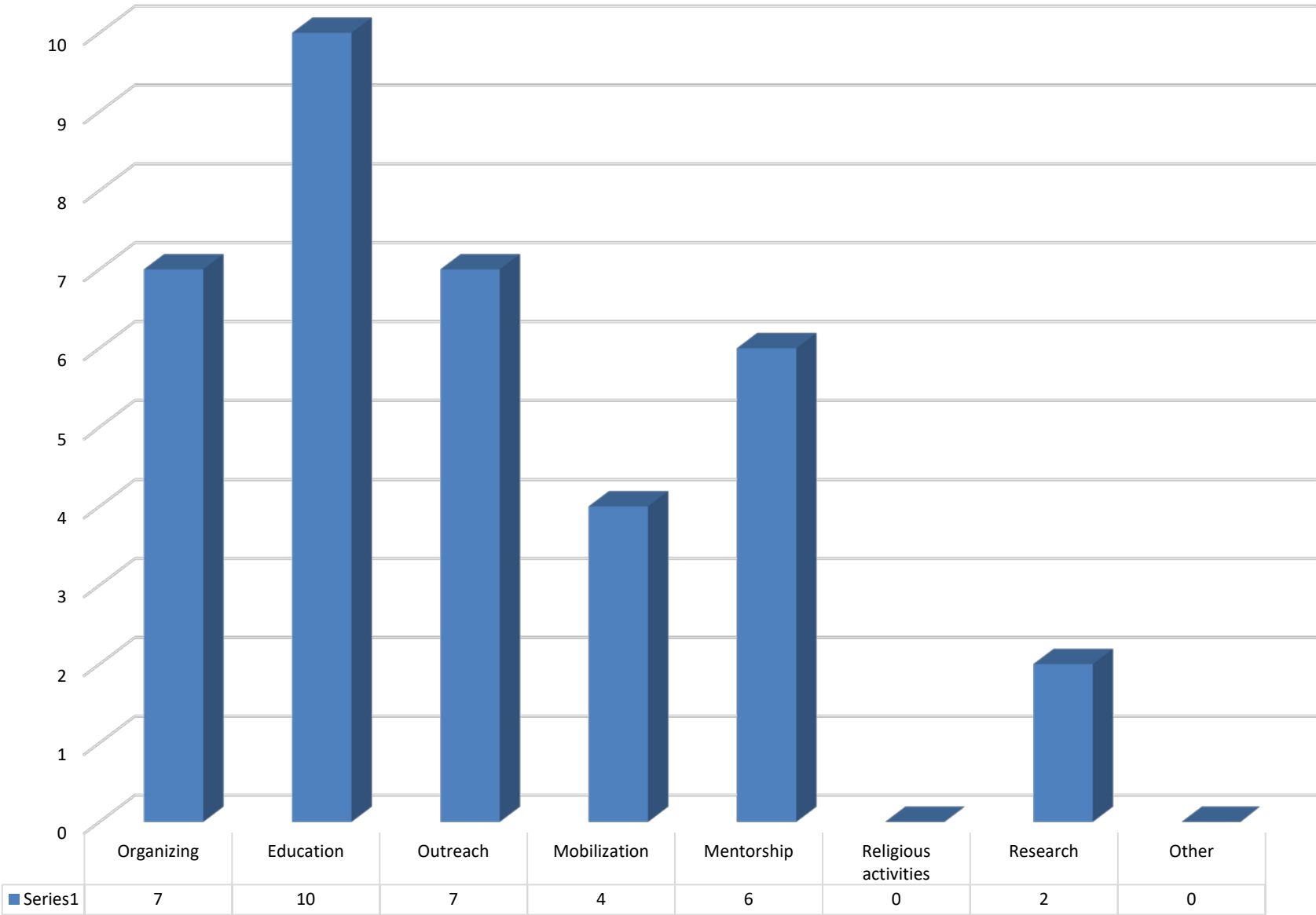
Who were these youth communities? Select all that apply.



21. How did you engage the youth community? **[select all that apply]**

- Organizing
- Education
- Outreach
- Mobilization
- Mentorship
- Religious activities
- Research
- Other (please specify)

How did you engage the youth community? Select all that apply.



22. Please describe any **tools and/or strategies** that you have used or are familiar with that have been utilized to help communities become resilient in the face of climate change.

- N/A
- I have personally used Art & Activism workshops to engage youth and get them prepared to think differently about their environment and community
- Power points and binders with information and resources. Offering free courses that allow for collaboration and for sharing of best practices.
- Bring members of vulnerable communities and interested parties/stakeholders together in a forum where they can discuss threats they face. This humanizes the interaction between groups that are effected by events and those that have resources to fix the problem. Encouraging oral tradition and respecting protocol and elders in a community can go a long way toward discussing resilient solutions. A specific resilience tactic would be to encourage the growth of local polyculture food movements that keep indigenous/organic products within the community and keep community members healthier and less dependent on external systems. This could prove helpful for any community (particularly, those in isolated places) that finds itself with food shortages following a natural disaster as a result of climate change.
- My master's work, along with subsequent studies, has led to Ahmedabad's heat action plan, greater dissemination of heat illness prevention tips for vulnerable communities, and placement of large displays of temperature warnings across the entire city. The state government has worked closely with NRDC to implement the intervention. As of 2015, an evaluation of the HAP suggested that the Plan has been effective at increasing awareness of the dangers of heat waves, disaster risk management, and climate change in Ahmedabad. The city is much more prepared for heat waves than it was in 2010. The innovative forecasting system along with outreach activities have proven beneficial in efforts to save lives. There were fewer city - reported deaths during Ahmedabad's annual heat season in the years since the Plan was launched.
- Educating the general public, and making sure information was easily understandable for all audience members, and then working on adaptive strategies to become resilient with current and foreseeable climatic impacts.
- The main strategy for building resilience of which I'm familiar revolves around developing inner resilience, and supporting expressions of wisdom and lived experience of the communities most impacted to speak and act for themselves. The theatre of the oppressed methodology is a tool to bring unheard stories into a space, and rehearse alternative options through embodied learning techniques. Building inner resilience and deeper understanding among and beyond communities is also about building the capacity of social movements to address the root causes of climate change over the long run—tackling institutionalized systems oppression and inequity. The vision and challenges to organizing and taking action on climate change is articulated well in the North Carolina Environmental Justice Network's statement on climate:
https://ncejn.files.wordpress.com/2016/01/ncejn_positiononclimatechange_2016-01-05.pdf

- Green Infrastructure development for storm water management; mobilization through churches and other faith based communities closely connected to the community; University and community group partnerships to address community concerns via research and development solutions;
- I don't have a great answer to this question
- I propose health impact assessment as a method to evaluate how a policy, program, or can affect health and resiliency in the face of climate change.
- Helping a community to become more sustainable, that is thinking more long term and thinking about the economic AND environmental impacts of every decision that stakeholders in a community make. This kind of thinking and decision making helps communities become more resilient to economic and natural disasters.
- I found the use of visual aids helped to illustrate points that may prove difficult to understand. Such as images, local reference points and hands on activities.
- Our work provides free home energy audits and weatherization. It's nice because people are saving energy and money at home, they are contributing less to climate change, and they are building resiliency against extreme heat. I think focusing on co-benefits helps when trying to implement strategies addressing climate resiliency
- Providing them institutional access to tools, information, history, and relationships.
- Mapping tools like ArcGIS were beneficial in analyzing climate issues, developing and establishing long term relationships with local governments and regulatory commissions while consistently influencing planning decisions was an asset, preparing comprehensive development plans, efficient time management while meeting aggressive deadlines in fast paced environments

23. What does *authentic engagement* with communities mean to you?

- Provide education and insight on various points and allow the community to organize themselves using the strategies and education provided.
- It means that we must build authentic, transparent and respectful relationships with the communities we work with and support. It is important to help create a platform for the impacted communities we wish to help and learn from.
- Developing and brainstorming ways to be active in one's community, not merely generalizations. Creating a personalized action plan and relating the climate crisis to the community you're addressing goes a long way.
- Being as present in a community as possible. This means meeting the community where they are and respecting the oral traditions many carry with them.

- A relationship that emphasizes mutual respect and co-learning between partners to work towards individual and community capacity building and systems change. No one individual dominates the decision-making process within the partnership.
- Presenting climate change as a holistic issue for all communities, and how those impacts can affect different regions throughout the world. Most importantly, proving facts about climate change issues that communities may not fully understand what is happening and/causing the changes.
- The need comes from the community, and they have a huge stake in the project design, executive, and evaluation. People who are outside of the community need to be open & willing to detach from outcomes to ensure that that process amplifies voices & experiences of impacted community members, not what outsiders believe to be true.
- Engaging with communities, and building relationships over the long-haul—not only approaching an organization right before a project needs to be completed or a proposal is due.
- As someone who is not part of the communities where I work, I am working on checking my own privilege at every turn—ideally, there is space in the outside organization/academic setting to process hang-ups and prevent damage. "
- In qualitative research, action research is an approach that involves the community at every major point and in the research itself to inform/influence engagement decisions and outcomes. I think of authentic engagement from this perspective, in that the community itself is informing and developing the decisions of projects and development, including self-organizing, to ensure true sustainability and outcomes that will be most beneficial to those most affected by the issues.
- Engaging in dialogue that places a special emphasis on truly listening to, valuing, and implementing the input of vulnerable communities. Involving them in the decision-making process, taking stock of community resources and knowledge, ensuring communities will not be displaced after positive change
- I think authentic engagement means creating space for diverse community members to have ownership over the agenda and decision making process. Engagement is not meant to be pedantic, but rather we should serve as facilitators and conveyors of the community's various needs and interests into the process.
- Listening to the needs of the community and engaging with community stakeholders and provide them with skills and knowledge that you have that may help their cause.
- Building relationships with folks, and meeting them where they are. A boots on the ground approach if you will.
- Basically treating a community as you would like to be treated. Actively listen and value their opinions, ask questions a lot, value their time and show it (i.e. give them something in return for their knowledge and time). Be honest about what you are able to provide, your restrictions and

your motivations. Be willing to change your mind. Mold your efforts around the feedback your given by community members. Don't cherry pick community member just because they agree with you. And be ok with failing at your task if it comes down to it.

- It means tying your liberation with theirs and not viewing the experience as helping or tokenizing.

24. *Based on your experience and/or knowledge, what are some best practices to engage with youth (ages 5-29)? Please provide examples and/or sources for your ideas of these best practices.*

- For millennials (16-36): provide leadership training and skills building opportunities for budding leaders. Example: We did a leadership development training for HBCU students and alums April 2015 and then provided follow up leadership. Mentorship in projects on campus and in their communities
- I enjoy creative projects with the youth and it has proven to work in engaging youth. Using mixed media, digital art, music, and theater in outreach efforts is always effective to gauge the level of interest and participation.
- Allow for Q&A. Put the crisis in ways that they will understand and in ways that they can relate to and see the information in their own life.
- Refer to answer in Q20... Also, young people also become more invested when an issue has to do directly with their own community (relating to food security, sustainability, preservation of culture through food practices, for example) rather than something larger. This is not to belittle the importance of expansive social media platforms. Those are crucial to long-term success, messaging and group viability. Recording and preserving stories and traditions would go a long way toward valuably engaging communities, as well.
- Bes practices: inspire youth to care about environmental issues through education and avenues that speak to them, and provide resources to help youth achieve their goals. Personally, after learning about anthropogenic-driven climate change, I was inspired to take action. I collaborated with several UCLA students to develop action research teams where we sought to increase campus recycling in one year and improve dorm energy efficiency in the next. our efforts led to the development of a course (<http://www.eslp.environment.ucla.edu/>) for action research made up of a dozen teams to develop strategies to reduce the campus's carbon footprint as well as to commitment and financial support from several campus administrative entities. Furthermore, we generated greater interest and concern among the student body for climate change issues and it appears this spirit of action has continued from 2008 till now. I also volunteered with the Greening Youth Foundation to work with youth concerned with sustainability. Through weekly creative lessons and hands-on activities, I expanded their knowledge about climate change topics and invigorated their interest in managing their school recycling program. I provided guidance to help them accomplish their recycling goals.
- Inform the youth on what is currently happening and what anthropogenic practices are contributing to climate and environmental issues. Give them a sense of caring, and what they can do themselves as well as giving them a "take home message" to inform their peers.

- Many of the best practices for engaging with youth come from my experience with participating in the North Carolina Climate Justice Summit. It is an extremely diverse, intergenerational space, and creates leadership opportunities for youth at every turn.
- Through the Climate Justice Summit, I connected with the Alliance for Climate Education (ACE), whose mission is to educate young people on the science of climate change and empower them to take action. The education side involves in-person assemblies where young people present a multimedia presentation on climate facts in an extremely imaginative and relatable way. ACE works in North Carolina, the Bay Area, Boston and New York to train high schoolers to host assemblies, and also take action with local environmental/climate groups on the most pressing issues in their communities (fracking, nuclear, pipelines, renewable energy, etc.). Their model has been so successful that they scaled up to create digital presentations as well. The online version of this presentation is called Our Climate Our Future: <https://ourclimateourfuture.org>.
- ACE is very open to helping the work group, and I think it would be especially interesting to learn more about how they're building a network to connect regional youth-driven projects across the entire U.S."
- Hands-on project development where students feel they have ownership and authority over what they are being taught (either in a school or church curriculum). This ensures that the students can and will go back and inform their elders to better influence community development.
- Working with academic institutions (ex: science classes but also high school students can learn via politics, economics, social studies classes if innovative curriculum is included to identify the multiple ramifications of climate change, empower students and illustrate how they can use their talents to contribute to the efforts to act on climate), citizen science programs, neighborhood/community organizations (ex: block clubs, YMCAs, after-school programs), social media platforms (ex: photo campaigns, hashtag contests, encouraging original content creation and storytelling)
- I think we should look to established bodies like schools, perhaps churches or other community organizations, as spaces that can support youth activity on these issues. There can be too much of a burden on youth to create the wheel over and over again, for it to fall apart when they leave for another or part of their life. I think it is important to maintain youth leadership and organizations should focus on trying to steward the work through cohorts, providing organizational and financial support to they can continue to grow.
- Getting involved in schools and school clubs was the easiest way for me to engage youth. Facebook also seems to be a good way to engage youth. Youth are concerned about what's going on and want to find careers where they could do some social good. So inspiring them to continue to fight for their causes is a way that I have been able to engage and work with other youth in the past.

- I found the use of visual aids helped to illustrate points that may prove difficult to understand. Such as images, local reference points and hands on activities.
- All of the youth we work with are paid employees which is great because we have some people who are really passionate about our work and some who just are interested in making some money. Diversity in opinion is sometimes hard to find in environmental groups but it is important and helps us grow and learn. Most of the work we do with youth is hands-on (i.e. building gardens, sampling water, door to door canvassing, cleaning up alleys, building trails, etc.). Doing specific tangible satisfying work with a finished product you can point to creates a powerful feeling of accomplishment and satisfaction and builds a momentum which makes bigger projects easier to tackle. I believe in starting small and local to help build that momentum and confidence in oneself. Doing hard manual work is also helpful because even those who struggle in the classroom can gain a sense of self confidence.
- The best practices are providing material resources for many young people who are already building the future we need now. That means funding, relationships, guidance, and avenues to speak for themselves in policy and movement spaces.

25. *Based on your experience and/or knowledge, what are some best practices to engage with vulnerable populations? Please provide examples and/or sources for your ideas of these best practices.*

- Provide education on the cause and effects on climate change. Example: our community organization did a lightbulb swap and installed new CFL's in various vulnerable communities. We used that opportunity to education each resident on why these lightbulbs were better and how they connect to community health
- One has been Art & Activism workshops, theater of the Oppressed, community gardens, Civic Club presentations, Community Health Festivals, Free Stores, and air monitoring projects
- See above.
- Refer to Answers in Q20 and Q22... One another thing- When it comes to vulnerable populations, forging bonds based in trust should be the top priority. Lack of trust engenders traumatic historical memories of old colonial tendencies and oppressive systemic forces. Cultural competence and sensitivity is crucial in this context.
- Best practices: avoid creating unrealistic expectations by being honest and clear about goals, and reach hard to reach populations through means that speak to them. While conducting my master's thesis work within the slum dwelling population, several potential survey-takers were under the assumption that I would address a specific problem for them since government workers participated in disseminating the survey and may have been indirect coercion. Whenever I had a chance to directly interact with my study population and requests/expectations were made re: the aftermath of my work, I made sure to clear that up even though it was written specifically into the survey intro. A Bay area organization has seemingly been successful in generating interest in environmental issues within communities of color via hip hop (<http://www.colorlines.com/articles/greening-hip-hop>). Interest and commitment are more easily attainable when the message comes from leaders within

vulnerable communities.

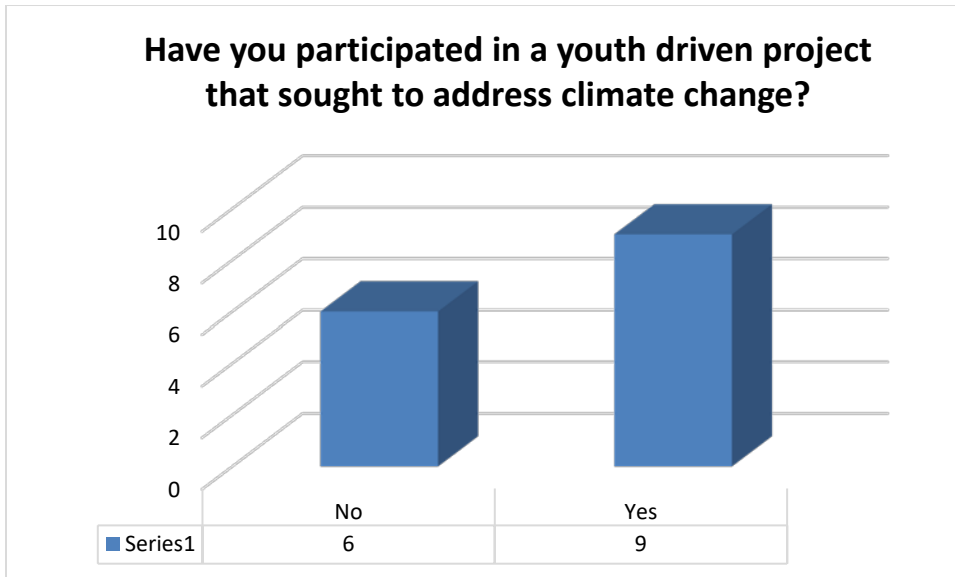
- Traditional Ecological Knowledge and/or indigenous knowledge.
- Setting realistic expectations about what collaborations can and can't yield. Sometimes, for example, a health study may not always be in the community's best interest. I've found these two resources to be very useful: Boston University/Madeleine Scammell's "Is a health study the answer for your community?" <http://www.bu.edu/sph/research/research-landing-page/superfund-research-program-at-boston-university/research-cores/community-engagement-core/health-studies-guide/> and Meredith Minkler's books on community organizing and participatory research: Minkler, M. (2012) *Community Organizing and Community Building for Health and Welfare* (3rd edition). Piscataway, NJ: Rutgers University Press.
- Making time to build relationships in person, not only by phone and email. Find ways to support community members outside of work spaces—if invited to an event like a birthday, wedding, etc., don't hesitate to go! Hold events and meetings in spaces that are easy for communities to attend. Always budget for reimbursing community members who travel (per mile, not gas total).
- If communities are visiting unfamiliar spaces like college campuses, be sure that they have access to facilities (parking) and that they are comfortable navigating. It helps to meet them right when they arrive, and also is extremely important that spaces are accessible to differently abled people.
- Vulnerable communities know more and have a deeper understanding of the problems they are facing, more often times than given credit for. This has been demonstrated in various communities in terms of their own self-organizing and bringing light to certain issues they find most critical. Engaging to listen and understand before engaging to actually engage is critical and can be done in a variety of ways. The peace corps and anthropological models encourage extensive engagement in the community to understand the scope and challenges of the community from a more authentic lens (6 mos-1 year) prior to actually working on implementing solutions. I have personally found this model to be effective and have seen many other examples of successes in environmental justice cases that took a similar approach.
- One-on-one meetings (or at least smaller conversations with key community leaders), inviting communities to public meetings (and supporting with transportation, aid in submitting comments, etc.), engage leaders to be involved with outreach (messengers from the community are oftentimes trusted more than outsiders)
- I would repeat some of those things mentioned above, and I would add that it is important to ask communities to prioritize the issues they want to focus on. A researcher may be interested in these certain health impacts, but if a community is focused or feeling another one more acutely, that should be addressed. This flexibility can strengthen the partnership and provide a better foundation for the work and future engagement.
- Connecting vulnerable populations with organizations and services who want to help is something I have done in the past. At this point in my career, I am most interested in learning

about vulnerable communities and learning with them.

- Each group requires a tailored approach, this may involve some trial and error on the part of the environmental worker. It may help to have a person who can relate to the target population.
- Again starting smaller and local. Finding something strait forward and doable to start. Once that is accomplished you can build momentum and accomplish bigger and bigger things and more people will want to join because everyone like to win. I think focusing on the immediate benefits is helpful but also put it in context.
- The best practices include having diverse voices from vulnerable communities speak and represent themselves, providing them with direct grant relationships, and connecting their local priorities to macro strategies and providing them a seat at the table rather than just on the menu.

26. Have you participated in a youth driven project that sought to address climate change?

- Yes
- No



27. Please briefly describe the project(s). What made the project(s) effective and/or ineffective at achieving the goal of the project(s)?

- Lightbulb swap described on the previous page. The project was effective because it educated community resident that otherwise would not know about climate change and its effects. It was ineffective because we did not do the planned follow up with the community to contribute to mobilizing and other advocacy
- The Free Store project was mostly ineffective because more community engagement and outreach was needed to be had prior to setting up the free store. It was initiated by people who had good intentions but we're not sensitive to the culture of the people in the community. The initial idea behind the free store was to create a space for people to come and exchange things

they no longer needed instead of paying for things.

- Students for Climate Action (SFCA), is a non-profit organization dedicated to empowering aspiring and current environmental activists through advocacy, training, and networking. The purpose of the organization is to engage students from across the United States on the most pressing issue facing our planet: anthropogenic climate change. Our mission is to connect aspiring activists, climatologists, engineers, and any and all youth who hope to one-day work in the fields of climate change advocacy, science, green energy, journalism, etc. By doing so, we will create a generation that better understands science, and create a cohort of scientists and engineers who are better able to advocate for themselves and their work. Over the past two years, SFCA (previously named the Youth Climate Coalition) has offered climate-education workshops and trainings to over one thousand individuals. While we are focused on connecting students, our free trainings are available to anyone; workshop guests have ranged from sixth graders to sixty year-olds.
- Conducting needs assessments on Pine Ridge Reservation and working with local high school students to address the local suicide epidemic through a plan for a community recreation center (that utilizes TEK, as well as traditional practices, to heal and remedy certain issues). When groups have numerous stakeholders and invested parties involved, it is incredibly helpful to have a clear, distinct message and focus. Competing interests can often clash, rather than complement each other.
- Providing many opportunities to learn about climate change and environmental issues through outreach of weekly campus events, tabling, and conferences.
- I'm currently in the process of working alongside communities, academics, students, and advocacy groups to connect the dots between industrial agriculture, climate change, and environmental justice. Communities in eastern North Carolina that are impacted by confined animal feeding operations (CAFOs) are also extremely vulnerable to increases in extreme weather events, drought, sea level rise, and warmer days. In order to really contribute to the movement – as an outsider – it has become essential to dig into history, and understand divisions between climate advocates, EJ groups, and campuses. In the Rachel Carson Council's effort to be a bridge between issues and stakeholders, we are in the process learning the history of CAFOs in NC over the last 30 years, and familiarizing ourselves with the divisions, spaces where trust was lost, and opportunities for hope. The project is still in its beginning stages, and so far has been effective because we're taking things slowly, listening to many different stakeholders about desires and fears, cultivating meaningful relationship with partner organizations, and also building space for youth to lead the way.
- Co-led student-run campaign to urge Loyola University to divest from Fossil Fuels. Initially was ineffective to just show student support. Ultimately presented to the University Senate, obtained support of key leaders, created a town hall panel of University faculty, staff, and administrators to demonstrate the benefits of and need to divest, presented to the University President and then was successful after gaining support of University finance experts and decision makers. Demonstrated how divesting from fossil fuels tied in with key University values and mission. This was another important tactic (finding out how our goal was connected to the values of the target audience).

- Once I worked with the Ramapough Lenape Tribe in North Jersey to stop a pipeline from being built through the Ramapough reservation. What made the project effective (even though the pipeline did actually get built) was the connections that we were able to make with other groups in the local area and the college community nearby. It made the Ramapough Lenape Tribe happy to know that nearby students also cared about the reservation and shared concerns with them. To this day, local organizations and students still reach out and support the Ramapough Lenape.
- The #ZeroBy2050 Campaign was an effort by 20 young people across the country to advocate for a long term goal in the Paris climate talks that paved a path to zero fossil fuels and provided losses and damages to vulnerable communities. On the former, we influenced language in the text and cultivated prominent relationships, while on the latter were not able to reach substantial progress, but developed key contacts and media content with voices who needed to be heard in the space and across the world.

28. *What types of youth driven project(s) do you think would effectively address climate change issues? Please provide examples you are familiar with to support your ideas.*

- Again, projects that are developed through the leadership of members within a specific community. E.g. Greening Hip-hop (<http://www.colorlines.com/articles/greening-hip-hop>). Education and resources are important to drive youth driven projects as well as giving them leadership responsibilities with trust that they will deliver. For example, while the Richmond, CA government mandated engagement with youth to address climate change, it is the youth at elementary schools that determine their focus after training. The Y-Plan program has been sustained since 1999 (<http://citiesandschools.berkeley.edu/blog/y-plan-richmond-ca-5-years-of-authentic-youth-engagement-in-city-planning>).
- I can't think of specific examples but I am biased towards allowing students to be creative enough to develop them on their own. I witnessed this happen in a summer program led by Intel this summer with students from Oakland. They were given the task to develop solutions to problems that their communities are facing. Several of the groups chose projects related to sustainability and climate resilience (given that the Bay area is highly susceptible) because these are problems they are aware of, and were creative enough to think of solutions on their own, solutions that were practical yet effective. I think this approach could work in any setting and that the adults and community organizers can be the ones to provide the appropriate resources to get the tasks done.
- I think the youth voice is powerful in organizing to speak to politicians and others in power. If youth are able to organize over broader distances and build coalitions and collaborations, like the DREAMers, undocumented youth from around the country, they will be more effective than if they are just regional or limited to their school.
- One that is tailored for a targeted population, and has ways to get folks involved. If we could break down the issues into their main points, and make it attractive and fun I am sure that will work well.
- I've worked to with youth building gardens, building trails, canvassing for energy audits, planting trees, cleaning up alleys, sampling water quality, and many other environmentally

focused activities. These were all through youth employment programs which I strongly believe in. While the money is what drew a lot of youth in, the relationships they built and the pride they developed for the work they accomplished to better their own community is what kept them coming back. Youth are great workers, especially when they believe in what they are doing and are doing it with friends. I think we should give the youth work with clear tangible goals that they can accomplish in a reasonable amount of time. I don't have much experience with youth coming up with their own ideas, we usually just show up get the job done and talk about it after, but I do believe that a youth led project is something that can be done well. But what drew me into doing environmental work was the work, the education part I could get from school, the work, the satisfaction of accomplishing something tangible is what really made me want to work in the environmental field.

29. Please suggest specific organizations and/or people who engage youth and/or vulnerable communities in climate change projects. Please provide names, contacts, and relevant links. If you have none, write none in the first row. [Contact information withheld for publication]

- West Atlanta Watershed Alliance wawa-online.org
- Youth in Action (EYCEJ)
- Dr. Daniel Wildcat
- Deborah McKoy, Y-Plan
- Arctic Youth Ambassadors
- Maayan Cohen, Deputy Director for Partnerships
- Alliance for Climate Education
- Maya Trotz
- Elevate Energy, Anna Markowski, Community Projects Manager,
- EMEAC, Eastern Michigan Environmental Action Council
- Captain Planet Foundation
- Deep South Center for Environmental Justice
- Shane Wright, Groundwork Denver, Youth Programs Director
- Garrett Blad, SustainUS
- National Wildlife Federation
- Furr High school
- Julie Maldonado
- Roger Lin, Communities for a Better Environment
- Aleutian Bering Sea and Island Landscape Conservation Cooperative
- North Carolina Climate Justice Summit, info@ncclimatejustice.org
- Little Village Environmental Justice Organization, Kim Wasserman-Nieto, Executive Director,
- DWEJ, Detroiters Working for Environmental
- SustainUS
- Florida A&M University School of the Environment
- Donny Roush, Earth Force, Urban Waters Program Director
- Destiny Watford, Free Your Voice, Baltimore
- Greening Youth Foundation; Gabriella Logan
- Los Jardines Institute
- Kalani Souza
- Ingrid Bostrom, The Center on Race, Poverty & the Environment
- Alaska Native and Tribal Health Consortium - LEO Network
- NC Warn
- Southeast Environmental Task Force, Peggy Salazar, Director
- UN Department of Public Information (Global Youth Involvement)
- Think About Personal Pollution
- Jes Ward, City Wild, Executive Director
- Lydia Avila, lydia@powershift.org, Power Shift Network
- Bob Gough
- Greening Youth Foundation
- Katy May, Center for Human Health and the Environment, NC State
- Englewood Community Development Corporation
- Energy Action Coalition
- FAMU Green Coalition
- Curt Collier, Groundwork USA, Youth Programs Director
- Ryan Camero, Restore the Delta
- Jean Tanimoto
- Bickerdike Redevelopment Corporation
- 350.org
- Adam Hasz, SustainUS
- Ryan Madden, Long Island Progressive Coalition

Case Studies

The Groundwork Denver youth employment program: Engaging youth and stakeholders in environmental justice work

Background

The Denver Metro area is home to over 2.8 million people, many who face new challenges brought on by climate change. These challenges include, but are not limited to, more frequent and intense heat waves, diminished air quality, drought, and flooding. Populations who are most vulnerable to these climate change impacts tend to be those living in low-income households, and are often people of color living in communities that face disproportionate environmental burdens in comparison to the rest of the Denver Metro Area. Neighborhoods like, Globeville, Elyria-Swansea, Westwood, Northeast Parkhill, and Montbello have higher populations of low-income families of color and face environmental challenges, including proximity to polluting industrial factories and major highways, a lack of parks or open spaces, or an inability to access fresh produce within their neighborhood.

Groundwork Denver is an environmental nonprofit that focuses on addressing inequities in environmental health, public health, and climate impacts by improving the physical environment through community partnerships and actions. This mission is manifested in many different ways such as providing residents with free home energy audits and efficiency upgrades; transforming brownfields into natural parks; providing incentives and education around alternative modes of transportation; free tree and bicycle giveaways; growing and distributing fresh produce; urban water and air quality monitoring; park and alley cleanups and activation; climate change resiliency planning; and a youth work and education program which employs youth from low-income households to help implement these improvement projects. A key component of the work taken on by Groundwork Denver is community and stakeholder engagement and partnerships. Partnerships with community members, local, state, and federal agencies, as well as the private sector, are vital to accomplish meaningful environmental and community improvement. Each project balances these partnerships differently, depending on variables such as the goals of the project, available resources, stakeholder interest, and stakeholder relevance.

Findings

One Groundwork Denver project which depends on various partner/stakeholder collaborations is the youth employment program (also known as the Green Team). Green Team partners range from national parks to neighborhood improvement organizations, city foresters to urban farmers, EPA scientists to volunteer groups, and of course, the youth themselves. These partnerships provide youth with diverse, meaningful work where they act as citizen scientists, trail builders, urban farmers, foresters, canvassers, community advocates, and overall environmental stewards. Groundwork is able to pay the youth to work alongside these partners who are provided a reliable workforce that can be guided toward environmental projects. These projects could be building a garden, maintaining a trail, canvassing a neighborhood, inventorying trees, cleaning up alleys, or other projects which improve health and well-being of the environment and surrounding community. Projects tend to have at least three stakeholders: the youth, the project lead, and the community being served, with each stakeholder benefitting from the completion of each project.

The youth receive valuable job skills, training, education, and exposure to environmental, conservation, and community improvement careers. Additionally, they receive a paycheck and build friendships with

coworkers (a benefit that is often mentioned by the youth as their favorite part about working at Groundwork).

The project leads benefit by having access to a young, able-bodied workforce which is often already paid for by Groundwork. Government organizations and nonprofits tend to need extra hands and are grateful for having a reliable workforce they can count on for help. In addition to the actual labor, project leads often benefit by simply working alongside the Green Team. Youth (especially those coming from non-English speaking households) are often ambassadors for their families and can be powerful community advocates. By working with young people, organizations can gain a better understanding of the communities the youth are coming from (whether that community is a neighborhood, a demographic, a culture, etc.). For example, the National Park Service has an initiative to broaden their appeal and workforce so their visitors and employees better represent the changing face of America's future. When our youth go to a national park to build a trail, the Park Service benefits from the trail being built, as well as the exchange park employees have with a demographic they do not typically encounter and are trying to draw in.

The final beneficiary of this collaborative effort is the community the project takes place in. The Green Team has helped increase the urban canopy of Denver's low-income neighborhoods, has grown and distributed organic produce in food deserts, turned dirty alleyways into public spaces for art and activities, collected water samples to help identify the source of E.coli contamination, signed hundreds of residents up for free home energy audits, removed invasive species from hundreds of acres of public lands, and many other projects, all of which have directly benefited the environment and surrounding community.

Best Practices

The Groundwork Denver Green Team Youth Employment Program began in 2007 with one team of five youth. Over the past 10 years, it has grown to a program that, in 2016, ran five teams employing over 60 youth and partnering with over 110 organizations. The success of the Green Team program is owed to a multitude of variables—Groundwork's ability to secure funding, the strength and character of youth leaders, and the hard work and determination of the youth themselves. However, two key components for success have been collaboration with youth and stakeholders. Below are some best practices identified by Groundwork Denver's Youth Programs Director on engaging and collaborating with both youth and other stakeholders.

Youth Engagement/Collaboration

- *Meet the youth where they are*

"When looking to get youth involved in programs, it is important to go to the places youth congregate. This could be schools, recreation centers, YMCA, Boys and Girls Clubs, or parks. Online spaces also work, but physically going to places where youth spend time has been more effective."

- *Provide youth with work that matters*

"Youth (like all people) appreciate being valued so give them valuable work and a way to share their accomplishments with the people that matter to them. Youth find pride in pointing to something positive in their community and saying they helped make it possible. Even if the work has a significant

positive impact on the environment, if the youth do not understand the value in their work or do not feel their work is appreciated, the work and its impacts can be significantly diminished.”

- *Provide incentives*

“Groundwork Denver focuses on employment-based youth development. This means that the youth we work with are paid either through a stipend or a steady paycheck. The employment model has worked great for Groundwork as it has drawn in youth who would not necessarily be interested in environmental work but like getting paid, as well as those who have a passion for the work, which makes for a more inclusive and representative workforce and environmental movement. Paid work also holds youth accountable, showing them that their work matters.”

- *Allow for diverse opinions*

“Rather than guiding youth towards an idea and rewarding them for reaching the conclusion you desire, it is important to let youth expand on ideas or present an alternative. Within the context of environmental or social justice work, it is important to frame for the kids how their work fits into the bigger picture and the motivation for professionals to pursue this work as well. However, within this framing, it is important not to create bias or hint at a “right” view or opinion.”

- *Provide an environment that builds relationships*

“The relationships that youth build with their peers is the reason they continue to come back to the Green Team. It is consistently the thing youth say they like best about working at Groundwork. If their friends do environmental work, they are more likely to enjoy environmental work, so Groundwork does its best to create a work environment where youth can become friends.”

- *Connect youth with peers who are doing similar work and have similar interests*

“While Groundwork Denver operates as its own nonprofit, it is connected to a network of Groundwork trusts across the country. Each year, Groundwork trusts bring several youths to convene in a national park, learn about each other's work, work together in the park, and build relationships. These trips are always beneficial experiences where youth build lasting friendships and discover that they are part of a nation-wide movement of young people who look like them and come from similar backgrounds. Our youth always return from these trips energized and ready to do great work due to the people they have met and the work these people are doing across the country.”

Engaging Partners and Stakeholders

- *Understand the needs of each stakeholder or partner and show dedication in completing the work*

“Some organizations can view working with youth as more work than it’s worth. Youth programs can be focused on education and exposure rather than completion of a project. Groundwork emphasizes the fact that we will get the job done and value accountability. Groundwork wants its youth to be an asset to partners rather than a burden and this accountability is the reason the organization is consistently invited back to work with partners.”

- *Go to where the people are*

“Just like engaging youth, when you engage stakeholders you need to go into their community and the places they work. Find events and where organizations of shared interests congregate, or show up to events hosted by stakeholders which would make good partners. Understand their goals and motivations and what influences them so you can better understand how you could partner.”

- *Be open to new opportunities and be flexible*

“Actively think of new opportunities for partnerships and ways to improve and expand upon the partnerships that already exist. Even if funding is unavailable or the timing will not work, raise the topic and plant the seeds; it may take some time but will allow for all partners to be on the same page and to jump at an opportunity if it comes up.”

- *Be adaptive*

“Do not over-plan, and be flexible. The Green Team program rarely has every week planned beforehand. This gives the program the flexibility to jump into new projects as they come up. Groundwork’s partners are rarely on the same schedule and timeline as the Green Team program but the ability to help partners with short notice is one of the qualities that is appreciated by partners. For example, if suddenly an urban garden needs to get plants in the ground before the weekend, if fliers need to be distributed before an event, or if a trail build just got last-minute approval, the Green Team can jump in and help these projects get accomplished.”

- *Build relationships*

“The Groundwork Green Team program would not operate if not for the trust that partners and youth put into the program. The youth trust that the work they are doing is worthwhile and appreciated and that Groundwork can provide a safe and positive work environment for them to be themselves. Partners trust that Groundwork will follow through on deliverables, meet the expectations agreed upon, and that the team is capable of completing the project.”

Recommendations

- *Provide incentives, if possible, and pay the youth*

Employment is a wonderful way to attract youth from different backgrounds and communicate that their work is valued. Youth who know nothing or very little about the environmental field will learn that not only is it a diverse field which affects their lives, but that there are jobs and opportunities available if they wish to pursue this line of work as a career.

- *Go to where the people are*

For both youth and partners, meet them where they are. Go to their offices, schools, clubs, worksites, and communities. Show up and take the time to understand their motivations, what they value, and what shared interests exist. Successful partnerships rely heavily on trust and trust requires understanding.

- *Be flexible and adaptive*

Challenges and new opportunities will constantly arise with increased flexibility and adaptability. If an idea comes up that has no funding or current opportunities, mention it to stakeholders and something may come of it eventually. Keep the conversation going so if one opportunity does not work out, there is another opportunity that can take its place without losing momentum. Communication is vital to keeping a flexible and adaptive work environment, so keep in touch with all stakeholders regardless of if they are directly involved in current projects.

- *Do not frame youth as victims*

In doing work related to environmental and social justice, the goal is to empower communities and the youth in them, rather than remind them of their disadvantages and the injustices they face.

Gaps and Barriers

- *Cultural compromise*

One of the challenges of bringing together low-income, urban youth of color and established environmental institutions like the Department of Interior or Forest Service is a cultural gap. Both sides have historically been separate from, wary of, or even exclusionary of the other. Breaking down the preconceptions of both groups and creating an attitude of openness, trust, and curiosity can be challenging.

- *Rigid Partners*

Another gap occurs when organizations wish to partner but are not flexible. The work done requires that partners instill trust in the organization, the youth, and their supervisors to get the job done. Older institutions that have a model already in place often have a hard time deviating from that strict model.

Life on the Navajo Nation and General Youth-Led Climate Justice Movement Building in US Tribal Communities

Background

“Indian Country” is common jargon for describing the lands within the United States that are held in trust on behalf of indigenous groups and individuals. In fact, this concept of land tenure is central to arguably any indigenous issue since the beginning of European colonization. According to the US Bureau of Indian Affairs (BIA), “Indian Country” currently consists of approximately 56.2 million acres of land contained within 326 Indian land areas (e.g. reservations, pueblos, Rancherias, missions, villages, communities, etc.). The largest of these areas is the Navajo Nation, a reservation of 16 million acres in the Four Corners region. The smallest is the Pit River Tribe’s cemetery, a 1.32-acre parcel in California. Many smaller reservations are, in fact, less than 1,000 acres apiece.

This land trust relationship between tribal governments and the United States is crucial to economic development, resource management, and even environmental regulation due to jurisdictional issues. Most land is either trust, individual trust, or fee-simple land, and the status of a land’s surface might differ from its subsurface. “Indian Country” is also rich in large quantities of the nation’s oil, gas, coal, and uranium resources.

For the last century or so, this once “useless” reservation land is now sought after by a variety of energy developers. Due to jurisdiction, however, investors have to go through so many steps of the federal government to seek leases and approvals, that they are often discouraged from entering agreements. When they do enter them, however, two major issues affect tribal communities: (1) The BIA has notoriously mismanaged payments from leases that were poorly negotiated in the first place and (2) a lack of occupational safety, environmental responsibility, and ethical business practices have left communities ill, contaminated, and violated on a number of socio-environmental levels.

The Navajo Nation is one example of a tribal nation in the thick of climate- and energy-related issues, like many tribal nations across the resource-rich and arid southwest. With a reservation population of about 180,000 people, but an enrolled membership of over 300,000, members inhabit much of the traditional Four Corners region (in Arizona, New Mexico, and Utah). Poverty and unemployment are two hindrances to the population, exacerbated by uranium contamination, a lack of accessible clean water, heavily regulated grazing permit structures, allotment fractionation, obesity, and diabetes. Traditional medicine has become less readily available as Western medicines in recent years through the government-funded Indian Health Services. Land jurisdiction and a lack of needed resources contribute to the “food desert” crisis across the Nation.

The youth that the Nation invests in to get education off the reservation often choose not to return home, contributing to the infamous “brain drain” predicament plaguing many tribal nations in the modern era. The framework used for energy development has contributed to the abuse of tribal resources and the creation of untrustworthy political structures, both at a federal and tribal level.

Laying this complex background for both “Indian Country” and, specifically, the Navajo Nation is crucial to understanding tribal youth-led climate justice movements. With just this small amount of background, it becomes clear how restricted true tribal sovereignty is. Even on the Navajo Nation, which is also rich with solar resources, companies profit heavily from exploiting non-renewables, and the Four Corners region has become a “sacrifice zone” to produce energy and deliver water to non-tribal communities. The framework is abusive to traditional beliefs and sustainability of the land, yet the fear of losing even more jobs keeps the tribal government locked in a state of dependency, uncertainty, and fear.

Despite the goings-on of the Office of the President and Vice President (OPVP) and the Tribal Council, however, communities at both the chapter and nonprofit levels have taken matters into their own hands through grassroots movements. Examples of community nonprofits on the Navajo Nation include Diné Citizens Against Ruining our Environment (C.A.R.E.) and the Black Mesa Water Coalition. These groups have been crucial in defending cultural and environmental rights, such as in the fight against the Grand Canyon Escalade project, as well as initiatives like wool buyback programs to cut out the middlemen in exploitive shearing and off-reservation wool-exporting operations.

These organizations also manage to support youth through a variety of internship programs. The Ancestral Lands project hires youth to practice local conservation relevant to their traditional homelands. Additionally, community-led movements include “Dooda Fracking!!”, an opposition against fracking operations in the sacred Chaco Canyon, and the unification of communities such as the Shiprock Chapter in supporting indigenous movements like #NoDAPL, an opposition to the construction of the Dakota Access Pipeline.

Since the last presidential election, Vice President Jonathan Nez has been especially involved in reinforcing many of these movements and community efforts. These various departments of the Navajo tribal government have the potential to encourage youth into the work they are already interested in pursuing. However, there needs to be the inspiration, initiative, and longevity for these projects to ensure an impact is made—whether that impact is on the community, tribal policy, or on the individual youth involved in the work.

This networking and these structures of inspiration can be seen on the local Navajo Nation level as well as the national and international level, and appears to be the most effective. In July 2016, Diné College and the Navajo Nation Youth Council worked together to host a Youth and Elders program. The conference was a hit, and it was inspirational to see so many youth sit with the Nation's oldest citizens. Every topic was covered, from environmental issues, to language loss, and even to reviewing contemporary issues such as gay marriage and LGBTQIA+ rights from a traditional perspective.

Findings

The tribal outreach on the Navajo Nation, across the country, and internationally have a few key components in common which help promote the success of youth-led climate movements.

Storytelling is a powerful element used in meetings, speeches, and to share experiences relevant to a wide variety of issues, ranging from climate change to cultural loss and damage. Non-indigenous entities have the tendency to quantify loss and damage with dollar figures, yet it is impossible to tack a monetary value on the displacement of people from their homelands and the destruction of plants, natural formations, and other non-human objects which are at the core of tribal religions and existence. Uplifting indigenous voices to greater, non-indigenous platforms often shakes the public audience out of their ignorance and into reality. In many cases, ignorance is the greatest barrier to the voices of affected indigenous peoples.

While connecting indigenous peoples on national and international levels delivers a powerful message to the world about the injustices commonly faced by the world's tribal communities, working within a singular community can also have a dramatic impact on youth interested in engaging their tribe. The elders in a community are often, per traditional standards, highly respected citizens that carry valuable knowledge such as songs, ceremonies, stories, and the identification of plants central to the culture. While youth are the future and therefore necessary for the survival of the tribal nation, they are also the apprentices to these elders and must find time to sit down with elders to transmit such ancient wisdom.

The Navajo Nation Youth Council's Youth and Elders Summit is a perfect example of how modern issues can be tackled by exchanging both ancient wisdom and new ideas through simple, intergenerational dialogue. Although some language barriers may exist between elders and youth even within the same tribal community, this interaction is pertinent for the passing on of information, for inspiring future generations, and even for encouraging the participation of youth within their tribal communities. It builds pride in the identity of people who have been historically abused and marginalized simply because of who they are.

Another key component to promoting successful youth-led climate movements is being sensitive to the uniqueness of the world's vast indigenous cultures. It is necessary for the cultural diversity of Native Americans to be understood and respected; understanding this diversity is also essential to understanding the diversity of cultural barriers and geographical separations between nations under the

same political status of “Indian.” The differences between the operations of tribes and their programs also affect the way youth and others within that tribal nation can engage with such issues as climate change. Also, seeing the ways in which both intergovernmental and internal conflict hinder the success of youth aspiring to be climate justice leaders should not be forgotten.

Finally, Native American representation in mainstream media is not only inaccurate, but also offensive. Understanding the reality of climate and environmental challenges on tribal lands, as well as understanding tribal diversity, can help prevent non-indigenous peoples, organizations, and governmental structures from perpetuating information or concepts that are inaccurate, racist, and discrediting to the intricate cultural identity that defines so many youths disproportionately affected by environmental issues within their individual tribal communities.

Best Practices

The success of the organizations mentioned depends on a variety of aspects, regardless of their methods of outreach. These aspects include: respect for the true identity of indigenous peoples, respect for traditional wisdom and cultural perspectives, and movement building through the similarities of marginalized indigenous communities around the world. Uplifting youth requires engaging directly with their communities, attempting to respect their traditional languages and perspectives, and desiring to uplift their voices as critically impacted areas of the American population.

Recommendations

- *Actively provide flexibility to culture and ethnic identification*

Marginalized communities often have a contextualized experience related to their historical trauma that has contributed to their current economic status. Whether in work with indigenous or non-indigenous communities, it is crucial to evaluate the role of community identity and to be able to adapt to best meet the needs of the community and its youth.

- *Intentionally seek out youth in marginalized communities*

The youth are the future, and the marginalized are the ones feeling the impacts of climate and environmental injustices the heaviest. Their stories are powerful, but their resources are limited; therefore, it is pertinent to seek out these groups of people who will likely have the personal experiences to provide the most moving effect of anyone else involved in the issues at hand.

- *Provide funding to key programs, if possible*

Many organizations that work within these communities, especially tribal communities, are in need of support that is specifically focused on encouraging youth into climate and environmental issues. Additionally, any ability to provide oversight of these organizations and their funds, without being too intrusive, will help commit funded programs to the fulfillment of their youth engagement objectives.

Gaps and Barriers

- *Cultural compromise*

One of the challenges of bringing together marginalized, and especially Native American, demographics of the United States with various federal entities is a cultural gap. Both sides have historically been separate from, wary of, or even exclusionary of the other. It has been a challenge breaking down the preconceptions of both groups and creating an attitude of openness, trust, and curiosity.

- *A lack of resources*

Another gap that especially occurs in impoverished, rural tribal communities is a lack of resources. Economic development is hindered on numerous levels because of tribal trust relationships with the federal government and the layers of red tape that hinder change. Youth are often placed in school systems that struggle to meet their educational needs at both a Western and a cultural level. Youth wishing to pursue aspirational endeavors may never have access to the human and monetary resources that can guide them to achieving their dreams. Any disadvantaged community faces similar issues; tribal communities are particularly affected by these constraints due to the semi-autonomous states of their tribal nations.

Harambee House, INC./ Citizens for Environmental Justice

Background

The Harambee House, INC./ Citizens for Environmental Justice (HH/CFEJ) is a tax-exempt organization located in Savannah, Georgia. HH/ CFEJ primarily works with communities in Georgia and South Carolina on environmental justice issues, but partners with business, governmental, and academic entities at the local, regional, national, and international levels. Its strategic goal is to ensure that community stakeholders participate effectively in representing their own interests and act as partners with government agencies who are tasked with safeguarding the health of the people and the environment.

HH/CFEJ is a community-based and accessible organization that is spiritually and culturally grounded in the African American community. With over twenty years of experience, this grassroots organization has a proven track record of being a catalyst and incubator for promoting civic engagement, environmental and climate justice, and social change.

The communities represented are low-income, working class Americans in small, rural communities in the southeastern region of the United States. The organization targets youth and young adults, although most of the work is intergenerational. Primarily, communities that are negatively impacted by economic, social, and environmental injustice are the focus for supporting community organizations that need capacity- building.

HH/CFEJ is in the initial stage of its work on climate change. It has worked with communities that are vulnerable to climate change and has engaged with youth on climate change issues. The primary goal is to use education and awareness to bring young people into the climate action movement. They engage high school students, college students, and college-aged youth through education and leadership development, research, awareness raising, outreach, participation in the COP process, and with policies and programs that will impact environmental justice communities.

Findings

HH/CFEJ works with organizations and communities to build their capacity; implements leadership development programs for youth; develops strong partnerships with government, business, and academic institutions; advocates for the development and enforcement of progressive public policies; and promotes cultural and spiritual consciousness about the relationship between humans and the environment. All of these strategies work together with the goal of empowering communities to challenge the status quo and against the harmful economic and environmental impacts of climate change.

Best Practices

HH/CFEJ puts youth in charge of work assignments, asks for and uses their input, and lets them lead. This approach has been effective particularly in the Black Youth Leadership Development Institute (BYLDI), a youth-driven initiative of the HH/CFEJ.

BYLDI's mission is to reconnect African American youth to their legacy as change agents who are able to facilitate their own transformation and that of their communities and nation. The primary objective is to implement an effective training program that builds capacity and relevant skills, and innovative and culturally competent models to develop confident, capable, and civic-minded youth leaders for the future. HH/CFEJ sees this as an investment in youth, and understands that this work is long-term and often arduous, but through a unified effort, can be successful.

BYLDI is a group of young black teachers, community educators, parents, various professionals, and regular citizens committed to redirecting the talent and energy of black youth into positive growth and development. The Institute trains, mentors, and cultivate young black leaders committed to social change in all areas of life. BYLDI's work focuses on creating replicable models for community centers, schools, and faith-based organizations. Each program, activity, and resource is designed to foster a worldview within black youth that links their reality of poverty, illiteracy, involvement in drug use, trafficking, and violence to the lack of access to the nation's resources and positive channels.

The BYLDI has created a curriculum specifically for climate change. This course is known as Climate Change and Community Engagement 101. All students are required to complete this course and report back on what they have learned.

BYLDI Climate Change Curriculum

Climate Change and Community Engagement- 101

A New Reality for Environmental Justice Community Work

- I. What is Climate Change?
- II. Impact on Place
 - a. Planet/ Global Environment
 - b. National
 - c. Coastal Communities
 - d. Rural Community
 - e. Urban Centers
- III. Impacts on:
 - a. Health
 - b. Economy
 - c. Vulnerable Populations
- IV. Policy
 - a. International/ COP Process
 - b. National- United States
- V. Organizing, Educating the People
- VI. Solutions: "What can be done?"
 - a. Global
 - b. National
 - c. State
 - d. Local
- VII. Role/ Response of Federal Agencies
- VIII. Emergency Preparedness/ First Responses
 - a. Community Mitigation
 - b. Community Adaption
 - c. Community Resilience

Another approach to educate youth about climate change used by HH/CFEJ is the implementation of the Coastal Communities and Climate Change Collaborative (C5 Collaborative). The C5 Collaborative focuses on the disproportionate impact of climate change on vulnerable and marginalized communities. Coastal communities, as evidenced by Hurricane Sandy, Hurricane Katrina, and the BP Oil Spill, will be hard hit by the impacts of climate change, and will require innovative measures, policies, and infrastructure to respond effectively. Vulnerable communities in these areas are already suffering from burdens to protect the environment, human health, and quality of life.

The C5 Collaborative will bring together community, academia, government, business, industry and young emerging leaders to develop strategies that inform, mobilize, and organize the people who live in these vulnerable communities. C5 also advocates for policies and programs that will prepare communities and address their needs. Community capacity must also be built to respond to anticipated and unanticipated impacts of climate change. For example, community-based disaster management should be coupled with practices and policies that create a win/win situation, such as creating adaptation and mitigation plans that promote justice and sustainability.

Recommendations

Youth-driven projects can be a way to effectively address climate change issues, so HH/CFEJ is providing engagement opportunities through the BYLDI. The recommendations created by BYLDI participants include finding ways to train in the sciences, deploying knowledgeable youth into communities to raise awareness, building their capacity to have a voice, inserting themselves in activities that focus on climate justice, and networking them with other youth and training them in emergency preparedness and response. HH/CFEJ heavily encourages established organizations to take these varied approaches while engaging both with youth and with vulnerable communities.

When entering into a community, it is important to have an open-mind, expecting to learn and not assuming that all of the information to be learned is unidirectional. Allow people to share their stories; no one knows their story better than they do. Avoid using acronyms or language that they may not understand. If they can't understand the language of the information that is shared with them, then it is not useful.

One of HH/CFEJ's most crucial recommendations is to successfully address the interaction between young people and elders in the community. Create spaces that allow leaders to provide youth with their wisdom.

In some vulnerable communities, tradition outweighs scientific evidence, so it is important that partners be able to facilitate personal connections to the issue they are attempting to address. In the experience of HH/CFEJ, it has proven that communities are more likely to show interest in and absorb the information that partners share if they can make a personal connection to it.

Gaps and Barriers

The strongest barrier to engaging with vulnerable communities is that they are over-burdened by a multitude of economic, social, and environmental problems. HH/CFEJ addresses this by using community-based participation and capacity-building activities, providing technical assistance, and lots of "hand-holding" while avoiding micro-management.

Additional challenges include issues of trust, lack of community participation, and the refusal to accept information. In communities with a history of being caught in relationships with external partners that

prove to be one-sided, community members can often feel as though they're being used or taken advantage of. This can make it difficult to gain the trust and participation of the community, which is essential to the long-term sustainability of any climate justice project.

While trust can be a large barrier to participation, other factors may be at play as well. Internal conflict between community members that may cause some members not to participate, work schedules that conflict with meeting times, or even mobility issues of community members for the elderly or disabled all can interfere with participation.

Alliance for Climate Education

Background

The mission of the Alliance for Climate Education (ACE) is to educate young people on the science of climate change and empower them to take action for climate justice. ACE's current work is rooted in educating and training emerging leaders in public high schools. They aim to create a culture shift toward climate action by teaching science that "puts teenagers at the center of the story" and cultivating leadership qualities in a diverse network of youth.

ACE was founded in 2008 in Oakland, CA by Michael Haas, a wind entrepreneur and father, who was concerned about the impact of climate change on his children's futures. The organization has a strong focus on the human health impacts of climate change and fossil fuel extraction in both its education and leadership programs.

ACE's free in-person education program, the ACE Assembly, and their digital climate education resource, Our Climate Our Future²⁷, focus on the health impacts of climate change through videos focused on air pollution, coal ash, and fracking.

In their Youth Action Fellowship, learning curriculum explores health and justice issues such as air pollution, urban heat islands, fossil fuel extraction, and impacts of extreme weather (hurricanes, droughts, and heat waves). Each fellow works on a regional campaign. For example, in Las Vegas, fellows conducted interviews about environmental injustices and health impacts related to climate change experienced by Nevadans. In the Bay Area, fellows organized around banning fracking wastewater used to irrigate crops, and looked at related health vulnerabilities. In Phoenix, where asthma is a leading cause of school absenteeism, fellows discussed the impacts of fossil fuel extraction, and how burning fossil fuels contributes to poor air quality and higher asthma rates.

In its first five years of operation, ACE reached over 1.8 million teens nationally through ACE assemblies held at high schools. ACE now has field programs in the Greater Boston Area, New York City, Greater Raleigh Area, Las Vegas, and San Francisco Bay Area. In the past, field programs also existed in Atlanta, Chicago, Dallas, and Los Angeles. ACE is an excellent example of how a small national organization that began without an explicit "climate justice" lens has shifted to become a mobilizing force for youth to address climate justice and health inequities.

Findings

ACE utilizes cross-cutting tools of education, mentorship, organizing, and outreach to achieve their goals and help communities become resilient in the face of climate change. The popular ACE Assembly is an in-person, energetic presentation that "combines climate science with pop culture entertainment."²⁸ The ACE Assembly includes a component that focuses on the local impacts of climate change, teaching

students in North Carolina about local coal ash dumping, for example. Over 60 percent of the students reached with the ACE Assembly are youth of color and 77 percent of all schools ACE reaches are public. ACE intentionally targets Title I public schools in its regions with the live ACE Assembly program. They also recruit from these schools for the Action Fellowship program.

Due to high demand for the assemblies, the Our Climate Our Future tool was launched in January 2016. It is a 40-minute online animated version of the live assembly, and a way of scaling up the program to reach a wider audience. The tool is available on a subscription basis (and has a free two-day trial). In the first part of the film, the narrator gives a comprehensive explanation of climate change, beginning by asking viewers to visualize all the space they occupy when they use natural resources. The sequence describes other phenomena including carbon sinks, the greenhouse effect, and fossil fuels in a way that is approachable and interesting to a high school audience.

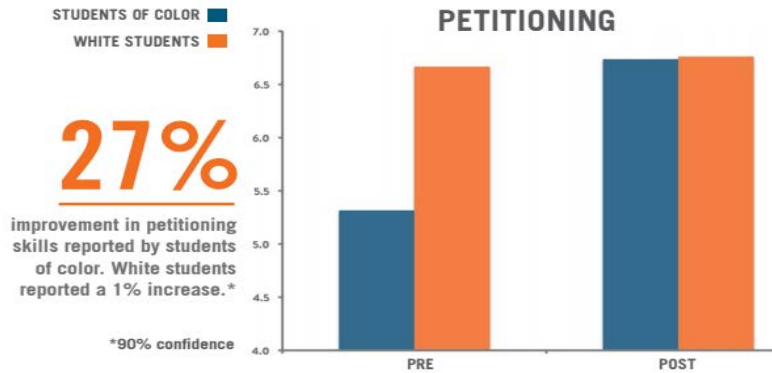
In the second section, the narrator discusses climate justice, specifically how young people are affected. This section features stories from youth in Watsonville, California; Kipnuk, Alaska; and New York City. The young people discuss changes they see relating to climate change, including drought, flooding, permafrost, and increasing frequency and intensity of extreme weather. This section does not highlight health vulnerabilities specifically, but rather focuses on the loss of business revenues in agriculture in California, forced changes in fishing and lifestyles in Alaska, as well as losing homes and educational opportunities in New York.

The third section of the tool revolves around solutions, and highlights the untapped potential in youth to participate in the green economy, as well as connecting to a national network of young people working to mitigate the impacts of climate change. The resource includes a “Facilitator’s Guide” that supports community groups who want to use the resource as an educational tool. An additional included resource links to the National Climate Assessment²⁹, an online tool developed by the U.S. Global Change Research Program with detailed information on local impacts of climate change across the country.

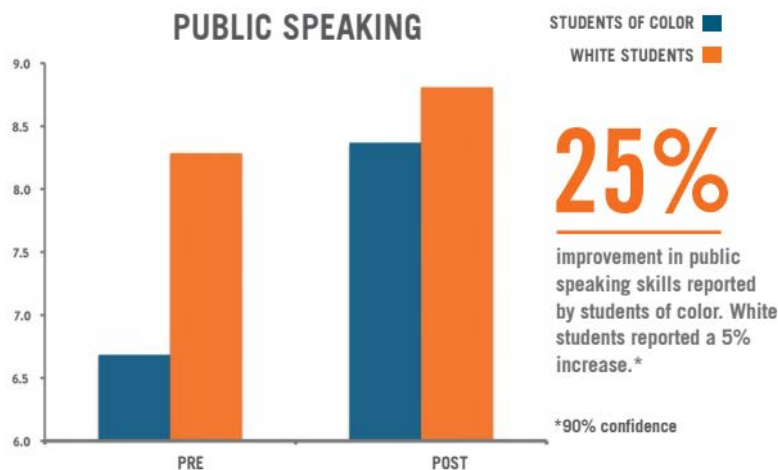
In addition to educating youth, ACE trains and mobilizes young leaders through the year-long Youth Action Fellowship, a program that grew in response to needs after Hurricane Sandy hit New York in 2012. The goal of the fellowship is leadership development and training of young people to be confident climate leaders by encouraging exploration, communication, and action about climate change through lenses of equity, justice, and optimism. Students meet weekly as a group with mentors and exchange education, knowledge-building, organizing, and campaign strategies. ACE chooses seven Action Fellows per year in NYC, Boston, Raleigh, the Bay Area, and Las Vegas. According to its 2015 Annual Fellowship Evaluation, the fellowship program is intentionally composed of a diverse group: in 2015, 63 percent of youth identified as youth of color. The program is designed to specifically support organizing and leadership qualities in non-white youth, and was successful in its efforts to do so in 2015.

SUPPORTING YOUTH OF COLOR

The Action Fellowship gives leadership skills to youth of color. Despite entering the Fellowship with significantly lower self-ratings than white students, young people of color report greater improvement in public speaking and petitioning.



The Fellowship also gives students the chance to partner with frontline communities in the struggle for climate justice. Fellows work to create awareness about climate change and its interconnected justice issues, through their spheres of influence including their peers, school communities, family, and broader community. ACE Fellows play a key role in their regional campaigns and ACE works to make sure that they have agency in choosing how their Fellowship team contributes to the larger campaign work. Examples of their activities include: letter-writing to newspapers and elected officials, lobbying their elected officials, canvassing door-to-door, collecting signatures on petitions, attending rallies and events, testifying in public hearings, speaking publicly at events and to the media, recruiting peers and classmates for events, and having one-on-one conversations with friends and family about climate justice issues.



In the Greater Raleigh Area of North Carolina, for example, ACE has been working with grassroots organizations since 2010 to stop nuclear energy and natural gas infrastructure, some of which

contributes to poor air quality and negative health impacts such as asthma, allergies, respiratory diseases, and cancer. Fracking and coal ash deposits specifically have been proven to contaminate water. Communities in North Carolina have also witnessed more extreme heat events and increases in vector-borne diseases.

Most of the activities ACE is undertaking in North Carolina include organizing youth to advocate for energy efficiency and renewable energy; however, a partnership with the UNC Institute for the Environment's Climate Leadership and Energy Awareness Program (LEAP) gave youth the opportunity to explore health impacts relating to climate change. During the 2015-2016 school year, the ACE Action Fellows spoke about their own experiences with health impacts relating to coal-fired power plants at a regional hearing on the Clean Power Plan in 2015. Action Fellow Jasmine Gregory testified for environmental justice and health: "Everyone deserves to live a healthy life in a healthy environment, but this is not always the case. In the United States, the number one reason that students miss school is asthma. Currently in North Carolina, 519,000 adults and 320,000 children have asthma, which can be directly linked to coal power plant emissions. I would like to emphasize that this is especially prevalent in minority and low-income communities where African-American children are three times as likely to suffer asthma attacks. Studies also show that race is the number one indicator in the placement of toxic facilities. This is the definition of injustice."³⁰

In Boston, air pollution is disproportionately concentrated in low-income communities and communities of color due to transportation infrastructure and Department of Public Works vehicle parking lots. Local toxic sites also create large amounts of construction dust and debris in low-income neighborhoods. Many vulnerable communities in Boston also lack access to fresh food. In Boston, ACE's focus tends more toward activities like supporting divestment from fossil fuels (through platforms like the Get Loud Challenge) and trying to push Massachusetts to commit to 100% renewable energy. However, there are organizations like Alternatives for Community and Environment that work at the grassroots level to organize youth and allow them to lead the way against urban health harms.

ACE plays a unique role in climate education and climate justice work, given that they have on-the-ground field programs in addition to coordinating a national youth network. Through digital advocacy campaigns, ACE can amplify the work of Fellowship teams. ACE currently communicates with an active list of 270,000 youth contacts each month in their ongoing digital engagement strategy. This national youth network provides support for fellows to take action in their community and at the national level.

Best Practices

During its 10 years in existence, ACE has formed many best practices for engaging with vulnerable populations and youth. As part of foundational knowledge-building for the Fellowship program, ACE introduces the Jemez Principles for Democratic Organizing. Storytelling is also central to ACE's approach. Each youth fellow creates a "Story of Self/Us/Now" or a public narrative, through a guided process. The model, supplemented by Marshall Gaines, a Harvard professor and organizer, has been used to build relationships and inspire action. ACE has used this technique for a number of years, and it's a powerful way to connect people to why they're showing up and wanting to be part of the work. Each story includes a moment of struggle. There are many ways to integrate the narratives into organizing and outreach. The method brings marginalized voices front and center at hearings, and specifically taps into young people's moral authority on climate change.

Below is a basic introduction to the Story of Self/Us/Now model:

- *Story of Self*: What brings an individual to the work? What is their personal connection to climate change?
- *Story of Us*: Collective story and bonding.
- *Story of Now*: Why is this story so urgent?

Though ACE did not originally begin with an explicit “justice” framework, it has worked over the last ten years to approach climate change through this lens, as well as connect climate change to other intersecting issues in communities: labor, health, economies, and wellbeing, for example. They currently occupy an interesting space; they are not a “big green” or a grassroots organization, nor are they explicitly an environmental justice organization. Rather, as a national organization they function as a bridge to support and partner with environmental justice organizations and help amplify that work, all while lifting up youth voices. They also support and collaborate with “big greens” and coalitions such as the People’s Climate Movement. Due to their structure and unique size, they are flexible to work both at a national scale and also in depth at regional levels.

- *Youth*

When selecting youth, ACE recognizes that young people have different ways of expressing themselves, and in the application process to become a fellow, they search not only for the “4.0” climate student who is already being supported, but also young people who are new to climate science, and may understand climate impacts on a visceral level, and/or have never engaged in a leadership program. The fellowship provides opportunities for peer-to-peer learning, and ACE aims to make the spaces as diverse as possible, as they believe such groups of young people will achieve the most profound impact. Diversity characteristics include gender identity and expression, race and ethnicity, varying ranges of English fluency, and geographical diversity.

ACE fellows are students rooted in their local communities, and ACE specifically looks for grassroots partners that will allow youth to play a central role in shaping and building campaigns. Partner organizations ideally possess the following qualities: they value youth input and have experience working with youth or youth organizing; they have a campaign in the works that young people can plug into, as well as space for fellows to have autonomy over their engagement; and they operate within a justice frame for their campaign work, or are open to having Fellows bring a justice frame to the campaign. Ideally, youth-driven tactics and strategies can influence the larger campaign.

Recommendations

ACE uses the model of popular education in the Fellowship program. Students draw from the collective knowledge in the room to learn from each other. ACE staff members intentionally make the curriculum as interactive and group-based as possible. Some examples: ACE starts meetings with interactive icebreaker activities; they do small group, one-on-one, and full group discussions; they each asset mapping to understand the full spectrum of connections in a campaign; and they create community guidelines to support all participants in the meetings.

ACE looks specifically to partner with grassroots organizations that have a capacity and/or history of allowing youth to play a central role in their work. Some qualities of these organizations that ACE looks for include: they value youth input and have experience working with youth or youth organizing; they

have a campaign in the works that young people can plug into, and also space for fellows to shape and have agency over their engagement; and they already have a justice frame for their campaign work, or are open to having Fellows bring a justice frame to the campaign.

The Story of Self/Us/Now model is a useful way to politicize the personal, and connect vulnerable populations to youth as well as strengthen connections between vulnerable youth. The organization has found that if people are able to find and speak publically about connections between climate change and the issues they most care about and are impacted by, their passion and commitment to climate work grows and solidifies.

Gaps and Barriers

ACE is a national organization with strong partnerships, both at the national level and the local level. At the same time, at all levels of their work, ACE recognizes they are a relatively new player on the scene. Their regional teams have been operational between five and eight years, at most. They respect their partners, recognizing that in most cases, they have been fighting for environmental and climate justice long before ACE came into existence.

At the same time, ACE has a valuable role to play as an intermediary between local environmental justice organizations and “big green” organizations. ACE fits between these ends of the spectrum, both in size as well as in the dual local and national scope of its work. Because the regional programs are focused on similar issues (preventing additional fossil fuel infrastructure and promoting access for all to renewable energy), ACE can help to connect local campaign work to a larger, national perspective.

ACE is in the middle of a three- to five-year strategic planning process in an effort to evaluate the kinds of structures and changes in programming they want to make to have the biggest climate justice impact. Staff members say it is an interesting time to be undertaking this strategic planning process while the political landscape is shifting beneath everyone’s feet. The main question ACE asks itself now is, “How will the climate movement continue to shift, and what is ACE’s role in that?”

The ACE Fellowship program does not meet on-site at schools, which can be a barrier to participation. Conflicts with after-school jobs or care for siblings and lack of reliable internet or computer access are also challenges. ACE provides travel stipends to weekly Fellowship meetings to all students, and a small general stipend for participating in the Fellowship. They also host weekly meetings in a location that is accessible by public transportation for students, and work to arrange transportation to outside events.

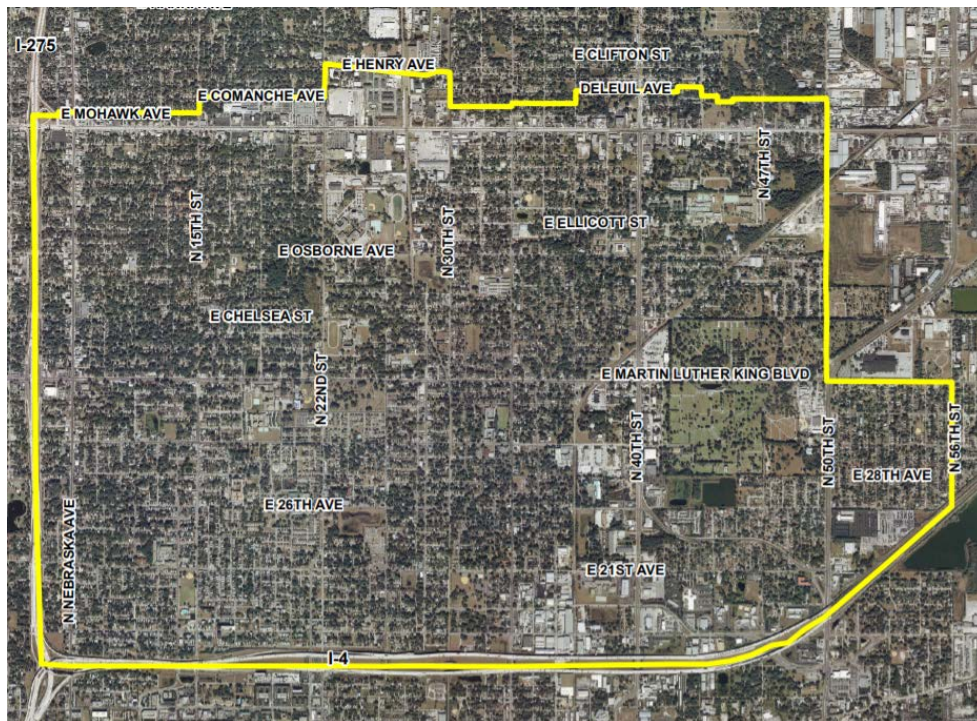
ACE provides healthy, hearty snacks at the beginning of meetings and tries to rely on text messaging with students outside of meetings instead of email. In ACE’s in-person education program, the ACE Assembly, the organization works with schools with students who are English language learners. ACE is working on adding English subtitles to the ACE Assembly for those learners. They also have both English and Spanish subtitles in Our Climate Our Future. One barrier that exists is getting the tools into the schools and communities on the frontlines of climate change that haven’t traditionally had access to such tools.

East Tampa Community Revitalization Partnership

Background

The impact of environmental degradation on African American communities, particularly in urban environments, is well-documented. However, each community is unique and has varying approaches of how to tackle social and environmental injustices in their neighborhoods. East Tampa, Florida is a unique community in addressing these challenges because it demonstrates the integration of other aspects of social injustice, particularly economic, as a mechanism to address environmental injustice resulting from physical infrastructure.

Historically, East Tampa is a predominantly African American community in the city of Tampa, uniquely situated between the city's major highways, I-275 to the west and I-4 to the south (see below).



East Tampa CRA boundary³¹

In addition to neighboring major highways, East Tampa also has various industrial businesses scattered throughout the community, mainly along the northern and eastern boundaries of the community. Historically, East Tampa has experienced several health, crime, education, and economic challenges, making the community an area of interest for the State of Florida.

In 2004, East Tampa was designated as a Community Redevelopment Area (CRA) through the City of Tampa with the goal of revitalizing communities to support economic development in areas that demonstrate specific needs and characteristics, under Florida Law (Chapter 163, Part III). Examples of conditions that can support the creation of a CRA include poorly maintained and developed infrastructure, minimum housing, insufficient roadways, etc.³²

The East Tampa Community Revitalization Partnership (ETCRP) oversees the governing of the CRA and ensures that the community's input across all neighborhoods within East Tampa are heard and prioritized. Despite the disparate conditions in East Tampa, the community has nonetheless demonstrated a level of agency to advocate for what they deem as necessary improvements within their own community. This has led to strong partnerships with universities, public schools, local nonprofits, and neighborhood associations.

Findings

The ETCRP has been successful in advocating for infrastructural changes through the City, but also through collaborations with the University of South Florida and other local nonprofits, including the Corporation to Develop Communities (CDC) of Tampa. Since 2004, one of the major focus areas for the ETCRP has been the revitalization of stormwater ponds within the community. Stormwater flooding poses a major climate threat for Tampa, and although East Tampa is landlocked, the community has over 30 stormwater ponds that have created their own challenges for the community. Due to increased industrial activity and high incidences of illegal dumping in the community, these stormwater ponds have presented environmental health challenges for the community. As a result, residents advocated for improved management of these ponds and specific revitalization efforts of a few selected ponds, mainly those situated near schools and major businesses to not only increase foot traffic for these local businesses, but to use the preexisting green space as a way to increase walkability throughout the community.

Building upon these larger scale revitalization efforts, the University of South Florida collaborated on efforts to work with these local schools and train students on basic environmental science collection and measurement techniques. More recently, efforts with a local nonprofit, Computer Mentors, and the University are working to pay and train students on collecting environmental data to further support revitalization efforts at the intersection of environmental management and smart technology. Not only did the infrastructural improvements aid in health efforts for the overall community, but also have served as spaces of learning and training for youth and continue to provide access to further these efforts.

At the heart of these collaborations is the ETCRP, without whom the necessary connection and trust within the community towards these outside entities would not exist. The ETCRP not only serves as a management body, but allows for meaningful collaboration, partnerships, and work to take place within the community, all in service to what the community itself has identified as being priority. Additionally, the ETCRP has helped to demonstrate the connection between economic justice and other justice movements, including environmental justice and the role that economic and infrastructure improvements can play in the overall movement towards creating health and education equity within African American communities, like East Tampa.

Best Practices

- *Meaningful collaboration with different agencies*

The success of the ETCRP has been largely dependent on the organization's ability to connect various pre-existing entities including city government, universities, public schools, and local businesses.

- *Youth leadership development*

Although youth development is not at the forefront of the ETCRP's mission, support from the University has led to over 80 service learning projects prioritizing the teaching and training of youth, particularly in projects related to infrastructure and stormwater management.

- *Economic justice linking to climate and environmental justice*

The ETCRP functions as a subsidiary of economic development within the city; however, based on community driven priorities, much of the work that has been done in the community is largely related to environmental and infrastructure conditions in the community. This linkage is important because it demonstrates the intersectionality of multiple justice movements and how one is dependent on another for overall success.

- *Community voice and knowledge at the forefront*

As a community driven entity, the ETCRP ensures that through these meaningful collaborations, community voice is always the driving force behind all projects that are conducted. Beyond community voice, ETCRP emphasizes the importance of the knowledge that exists within the community as being equally valuable, if not more so, than those coming from an outside perspective.

- *Intergenerational approach to improving community*

Due to the various partnerships that have stemmed from the ETCRP, youth have not only been supported, but have been essential in the continued management of the ETCRP and the ongoing community development strategies. East Tampa as a whole has a fairly evenly distributed age population, and through the various projects that have occurred in the community, elders are not only working with youth, but continuing the training and knowledge sharing of the history and skills necessary for youth to step up and be the next leaders in the community.

Recommendations

Climate justice movements can learn from larger social justice movements that have a longer history of prevalence in African American communities, and other marginalized populations. Linking economic justice and climate justice is essential to not only creating a larger movement but in connecting climate justice to everyday societal challenges, thereby closing an understanding gap that seems to exist within the climate justice movement. Climate justice is only a small portion of the holistic fight for justice and it is important that as leaders we recognize the need to integrate this work with other justice movements and not treat them as mutually exclusive.

The success of youth and engagement within the climate justice movement largely depends on collaborations with various partners and ensuring that, with these partners, community wisdom is not only respected but prioritized within efforts to improve the living conditions of a particular community.

Youth leadership development is critical within this movement. It's not enough to simply attempt to engage youth in the work but to make intentional efforts to train the next generation to take on the tasks of leading the movement. This can only happen with a deep technical and structural understanding of climate justice.

Gaps and Barriers

Community trust is an ongoing challenge, particularly within East Tampa where, because of their demographics, residents have felt like they are only an experiment or even have received false promises over the years. The most meaningful experiences for both residents and outside collaborators have occurred when people took the time to learn about the community, which can take multiple years. However, depending on certain interests, some entities may not be willing to invest that much time to learn about the community, but it is important that that time be taken as there is a necessary learning that should take place to ensure that community knowledge and interests are considered.

Turnover of community partners dependent on the entity has presented challenges to ensure longevity of projects and knowledge sharing. For example, when working with the public schools, teacher turnover has either stalled projects or led to the abandonment of certain projects altogether. In addition to taking time to learn about the community, partners need to be identified more carefully to ensure that those partners will have more of a lasting presence within the community.

ETCRP was developed as a result of government intervention and the creation of the CRA. While all communities may not have this same supporting infrastructure, it may be more challenging to create the same level of agency. However, several communities have demonstrated capacity to do the same job as ETCRP and mobilize to advocate on their own behalf. For example, residents of Augusta, GA in the early 2000s mobilized to reduce the toxicity impacts of industrial activity in a neighborhood similar to East Tampa (Checker, 2005)³³.

Examples of Climate Justice Efforts from Across the Country

Many organizations stand out for their support of local youth in leadership positions in their organizations and in the development of youth-led projects in their community. These organizations all prioritize working with youth and utilize tools like “communiversity” (a model of community partnership) and culturally-based education programs that emphasize meeting youth where they are.

All these organizations emphasize a respect for youth knowledge and experience and the importance of supporting the next generation to take the lead in these struggles. Though these examples do not represent the entirety of the work being done to promote youth leadership in the climate justice movement, they do represent a diverse set of practices, from working in university-community partnership to promoting national and international civic engagement. These examples were highlighted by members of the Work Group through the Work Group member internal survey, outlined in the methods section and presented in full in the Appendix.

Detroiters Working for Environmental Justice

Detroiters Working for Environmental Justice (DWEJ) works through policy innovations, education programs, and workforce initiatives to build a cleaner, healthier, and safer community in Metropolitan Detroit, and was established in 1994.³⁴ DWEJ focuses on building local leadership through job training and community development projects. The Detroit Youth Climate Summit is an annual program through the Detroit Climate Action Collaborative (DCAC) which brings high school students from across the city together to discuss the impacts of climate change in their communities and the world. DWEJ also supported a participant in the Youth Climate Justice Summit to attend the United Nations Framework Convention on Climate Change Conference of Parties 21 in Paris, France in 2015. Their work training

programs have provided the groundwork for career opportunities for low-income minority residents in the environmental and construction-related industries in Detroit.

Powershift Network

The Power Shift Network is a nationwide coalition that has been one of the most visible forces in youth activism on climate change across the country through their regional meetings and social media presence. On their website, they explain their mission: "Through the collective power of young people, the Power Shift Network is working for a safe climate and just future where communities are thriving and own their power—whether that power is electrical, economic, social, or political."³⁵ The Network uses volunteers to engage with individual members and member organizations from across the country. Member organizations include 350.org, Alliance for Climate Education (highlighted in this report), Climate Generation, Community Power, Global Zero, iMatter, Groundswell, National Wildlife Federation EcoLeaders, Sunrise Movement, SustainUs, and many student organizations such as the California Student Sustainability Coalition, the Midwest Student Coalition for Climate Action, Pennsylvania Student Power Network, and the United States Student Association.³⁶

Greening Youth Foundation

The Greening Youth Foundation (GYF) is based in Atlanta, Georgia and works with children, youth, and young adults from diverse, underserved, and underrepresented communities. GYF uses culturally-based environmental education that encourages healthy lifestyles and exposes youth to career opportunities in the environmental field. The latter is accomplished through working with land management agencies to provide service and internship opportunities that can lead to conservation careers.³⁷

Little Village Environmental Justice Organization

Founded in 1994, Little Village Environmental Justice Organization began as an effort to stop particulate pollution from renovations at a nearby school in the Little Village neighborhood of Chicago from impacting the predominately-Hispanic surrounding community. They then moved on to other environmental justice issues, such as a nearby power plant, a Superfund site, and a bus line, all of which they eventually shut down.³⁸ They provide internships for both high school and college-aged youth. These positions are geared toward building youth leadership in the community and in the field of environmental justice. Youth are vital to their climate adaptation efforts with their participation in programs to address climate-related health vulnerabilities, just transition and energy resiliency, and zero-waste and recycling programs.

¹ "Jemez Principles for Democratic Organizing - t.e.j.a.s." Texas Environmental Justice Advocacy Services. October 02, 2014. Accessed January 12, 2018. <http://tejasbarrios.org/jemez/>.

² "Principles of Environmental Justice - t.e.j.a.s." Texas Environmental Justice Advocacy Services. December 09, 2014. Accessed January 12, 2018. <http://tejasbarrios.org/ejprinciples/>.

³ Clarkson, Linda, Vern Morrisette, and Gabriel Régallet. "Our Responsibility to The Seventh Generation: Indigenous Peoples and Sustainable Development." *International Institute for Sustainable Development*, 1992, 24-25. Accessed January 12, 2018. https://www.iisd.org/pdf/seventh_gen.pdf.

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- ⁴ Sloan, Emily, Jacqueline Stedman, and Saira Butt. "Environmental Injustice in North Carolina." Duke University. Accessed January 12, 2018. https://sites.duke.edu/docst110s_01_s2011_sb211/what-is-environmental-justice/history/.
- ⁵ Tokar, Brian. "Movements for Climate Justice." In *Handbook of the Climate Movement*, edited by Matthias Dietz and Heiko Garrelts. New York, NY: Routledge. December 2012. Accessed January 12, 2018. <http://www.social-ecology.org/wp/wp-content/uploads/2012/12/Tokar-Climate-Justice-2013.pdf>.
- ⁶ Calma, Justine. "In Three Major Cities, Millennials Take on Climate Change." The GroundTruth Project. February 10, 2017. Accessed January 12, 2018. <http://thegroundtruthproject.org/youth-take-climate-change-establishment-new-york-paris-marrakesh/>.
- ⁷ Giancatorino, Anthony. "Post-Katrina: How Gulf Coast Communities are Taking Action." Center for Social Inclusion. August 31, 2015. Accessed January 12, 2018. <http://www.centerforsocialinclusion.org/post-katrina-how-gulf-coast-communities-are-taking-action/>.
- ⁸ Semuels, Alana. "Imagining a Post-Coal Appalachia." The Atlantic. April 08, 2015. Accessed January 12, 2018. <https://www.theatlantic.com/business/archive/2015/04/imagining-a-post-coal-appalachia/389817/>.
- ⁹ "Home - Fossil Free." Fossil Free. Accessed January 12, 2018. <https://gofossilfree.org/>.
- ¹⁰ Dhillon, Jaskiran. "Indigenous Youth Are Building a Climate Justice Movement by Targeting Colonialism." Truthout. June 20, 2016. Accessed January 12, 2018. <http://www.truth-out.org/news/item/36482-indigenous-youth-are-building-a-climate-justice-movement-by-targeting-colonialism>.
- ¹¹ "Power Shift '09: 12,000 Students Attend Largest Youth Summit on Climate Change in US History." Democracy Now! March 2, 2009. Accessed January 12, 2018. https://www.democracynow.org/2009/3/2/power_shift_09_12_000_students.
- ¹² Foderaro, Lisa W. "Taking a Call for Climate Change to the Streets." The New York Times. September 21, 2014. Accessed January 12, 2018. https://www.nytimes.com/2014/09/22/nyregion/new-york-city-climate-change-march.html?_r=2.
- ¹³ Pandve, Harshal, Poonam Deshmukh, Rahul Pandve, and Neha Patil. "Role of Youth in Combating Climate Change." *Indian Journal of Occupational & Environmental Medicine*, 13, no. 2 (August 2009): 105. Accessed January 12, 2018. doi:10.4103/0019-5278.55130.
- ¹⁴ Mueller, Michael and Deborah Tippins. *EcoJustice, Citizen Science and Youth Activism: Situated Tensions for Science Education*. Springer International Publishing. 2015. Accessed January 14, 2018. <http://www.springer.com/us/book/9783319116075>.
- ^{xv} "Title I, Part A Program." US Department of Education. October 05, 2015. Accessed January 14, 2018. <https://www2.ed.gov/programs/titleiparta/index.html>.
- ^{xvi} "Home - Power Shift Network." Power Shift Network. Accessed January 14, 2018. <https://powershift.org/>.

^{xvii} "CNAY Hosts Close Up Native Youth in Washington, DC." Center for Native American Youth at the Aspen Institute. April 29, 2016. Accessed January 14, 2018. <https://cnayblog.wordpress.com/2016/04/28/cnay-hosts-close-up-native-youth-in-washington-dc/>.

^{xviii} Wright, Beverly, Dr. "Integrating Academia and Activism...Moving Towards Participatory Research and Academic Activism." Lecture, Environmental Justice Climate Change Conference, University of Michigan. Accessed January 14, 2018. <http://ejj.snre.umich.edu/EJCC/PRESENTATIONS/Beverly%20Wright.pdf>.

^{xix} "Jemez Principles for Democratic Organizing - t.e.j.a.s." Texas Environmental Justice Advocacy Services. October 02, 2014. Accessed January 12, 2018. <http://tejasbarrios.org/jemez/>.

^{xx} "Principles of Environmental Justice - t.e.j.a.s." Texas Environmental Justice Advocacy Services. December 09, 2014. Accessed January 12, 2018. <http://tejasbarrios.org/ejprinciples/>.

^{xxi} "What is Popular Education?" Teaching Democracy. November 17, 2016. Accessed January 14, 2018. <https://teachingdemocracyblog.wordpress.com/aboutwhat-is-popular-education/>.

^{xxii} "Theatre of the Oppressed." The Mandala Center for Change. Accessed January 14, 2018. <http://www.mandalaforchange.com/site/applied-theatre/theatre-of-the-oppressed/>.

^{xxiii} Clarkson, Linda, Vern Morrissette, and Gabriel Régallet. "Our Responsibility to The Seventh Generation : Indigenous Peoples and Sustainable Development." *International Institute for Sustainable Development*, 1992, 24-

²⁵ Accessed January 12, 2018. https://www.iisd.org/pdf/seventh_gen.pdf.

^{xxiv} Geiling, Natasha. "Climate Kids to Get Their Day in Court Against the Trump Administration." ThinkProgress. June 29, 2017. Accessed January 14, 2018. <https://thinkprogress.org/youth-climate-lawsuit-trial-date-set-24bccdfaf237>.

^{xxv} "Jemez Principles for Democratic Organizing - t.e.j.a.s." Texas Environmental Justice Advocacy Services. October 02, 2014. Accessed January 12, 2018. <http://tejasbarrios.org/jemez/>.

^{xxvi} "Principles of Environmental Justice - t.e.j.a.s." Texas Environmental Justice Advocacy Services. December 09, 2014. Accessed January 12, 2018. <http://tejasbarrios.org/ejprinciples/>.

²⁷ "Our Climate Our Future." Alliance for Climate Education. Accessed February 22, 2017. <https://ourclimateourfuture.org/>.

²⁸ "Alliance for Climate Education." Devex. Accessed January 14, 2018. <https://www.devex.com/organizations/alliance-for-climate-education-72363>.

²⁹ "National Climate Assessment." U.S. Global Change Research Program. 2014. Accessed January 14, 2018. <https://nca2014.globalchange.gov/>.

³⁰ "Alliance for Climate Education Fellow Jasmine Gregory Testifies at NC Clean Power Plan Hearing." YouTube. December 25, 2015. Accessed January 14, 2018. <https://www.youtube.com/watch?v=5ceKH-Sx6qQ&feature=youtu.be>.

³¹ "East Tampa Community Redevelopment Area." City of Tampa. Accessed March 29, 2018. <https://www.tampagov.net/economic-and-urban-development/programs/community-redevelopment-areas/east-tampa>.

³² "CRA Basics." Florida Redevelopment Association. Accessed March 28, 2018. <http://redevelopment.net/cra-resources/q-a-for-cras/>.

³³ Checker, M. "Polluted Promises: Environmental Racism and the Search for Justice in a Southern Town." New York University Press. 2005.

³⁴ "About Us - Detroiters Working for Environmental Justice." Detroiters Working for Environmental Justice. Accessed January 14, 2018. <https://dwej.org/about/about-us/>.

³⁵ "Power Shift Network About Page." Power Shift Network. Accessed January 14, 2018. <https://powershift.org/about>.

³⁶ "Power Shift Network Members Page." Power Shift Network. Accessed January 14, 2018. <https://powershift.org/members>.

³⁷ "The Company - Greening Youth." Greening Youth. March 30, 2016. Accessed January 14, 2018. <http://www.gyfoundation.org/the-company/>.

³⁸ "History - LVEJO." Little Village Environmental Justice Organization. 2014. Accessed January 14, 2018. <http://lvejo.org/about-us/history/>.